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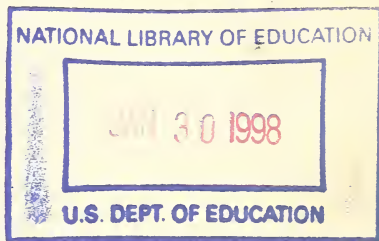
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ANNUAL REPORT

OF THE

SECRETARY OF THE INTERIOR

FOR THE



FISCAL YEAR ENDED JUNE 30, 1895.

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IN FIVE VOLUMES.

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VOLUME V-IN TWO PARTS.

PART 1.

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WASHINGTON:  
GOVERNMENT PRINTING OFFICE,  
1896.



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THE UNITED STATES  
BUREAU OF EDUCATION.

*Created as a Department March 2, 1867.  
Made an Office of the Interior Department July 1, 1869.*

NOT RECORDED TO 1910 20

COMMISSIONERS.

HENRY BARNARD, LL. D.,  
*March 14, 1867, to March 15, 1870.*

JOHN EATON, Ph. D., LL. D.,  
*March 16, 1870, to August 5, 1886.*

NATHANIEL H. R. DAWSON, L. H. D.,  
*August 6, 1886, to September 3, 1889.*

WILLIAM T. HARRIS, Ph. D., LL. D.,  
*September 12, 1889, to date.*

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United States. Bureau of  
Education.

Report of the Commissioner  
of Education made to the

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# REPORT OF THE COMMISSIONER OF EDUCATION.

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DEPARTMENT OF THE INTERIOR,  
BUREAU OF EDUCATION,  
*Washington, D. C., May 1, 1896.*

SIR: I have the honor to submit herewith my seventh annual report, the same being for the year ending June 30, 1895.

## WHOLE NUMBER ENROLLED IN SCHOOLS AND COLLEGES.

There were enrolled in the schools and colleges, public and private, of the United States during the school year 1894-95, 15,688,622 pupils, being an increase of 158,354 over the previous year. A detailed classification of these pupils is given on pages XI and XII, showing the number in the elementary schools, in the secondary schools and in the various institutions for higher education.

The number in schools supported by public funds and taxation was 14,280,070; the number in private institutions, 1,408,552.

In addition there were some 400,000 persons enrolled in various special schools and institutions such as business colleges, trade schools, conservatories of music, schools of art and elocution, schools for delinquent and for defective classes, Indian schools, evening schools, etc., making a grand total of about 16,100,000 persons who attended a school of some kind for a longer or shorter period during the year.

## THE COMMON SCHOOLS.

The term "common schools" is used by this office to include public elementary and secondary day schools. The following table gives a condensed summary of the common-school statistics compiled from data furnished this office by the State superintendents. The returns are to be found in detail on pages XXXV and LVII. The corresponding figures for the school year 1893-94 are given in a parallel column in order to facilitate comparison. It will be seen that the increase for the year is 265,775 pupils.

*Common-school statistics of the United States.*

|  | 1893-94.      | 1894-95.      | Increase (+)<br>or de-<br>crease (-). | Per cent<br>of in-<br>crease or<br>decrease. |        |
|--|---------------|---------------|---------------------------------------|--|--------|
| I.—General statistics.   |               |               |                                       |  |        |
| Total population (estimated) .....                                 | 67,891,380    | 68,748,950    | +                                     | 857,570                                      | + 1.2  |
| Number of persons 5 to 18 years of age (esti-<br>mated) .....      | 20,086,423    | 20,328,147    | +                                     | 241,724                                      | + 1.20 |
| Number of different pupils enrolled .....                          | 13,935,977    | 14,201,752    | +                                     | 265,775                                      | + 1.91 |
| Per cent of population enrolled .....                              | 20.53         | 20.65         | +                                     | 0.12   | .....  |
| Per cent of persons 5 to 18 years enrolled .....                   | 69.39         | 69.85         | +                                     | 0.46   | .....  |
| Average daily attendance .....                                     | 9,187,505     | 9,387,507     | +                                     | 200,002                                      | + 2.18 |
| Ratio of same to enrollment .....                                  | 65.92         | 66.11         | +                                     | 0.19   | .....  |
| Average length of school term in days .....                        | 139           | 141.4         | +                                     | 2.4  | .....  |
| Aggregate number of days attended .....                            | 1,277,037,178 | 1,327,953,863 | +                                     | 50,916,685                                   | + 3.99 |
| Average number for each person 5 to 18 years .....                 | 63.6          | 65.3          | +                                     | 1.7  | .....  |
| Average number for each pupil enrolled .....                       | 91.6          | 93.5          | +                                     | 1.9  | .....  |
| Male teachers .....  | 124,768       | 128,376       | +                                     | 3,608  | + 2.89 |
| Female teachers .....  | 263,239       | 267,951       | +                                     | 4,712  | + 1.79 |
| Whole number of teachers .....                                     | 388,007       | 396,327       | +                                     | 8,320  | + 2.14 |
| Per cent of male teachers .....                                    | 32.2          | 32.4          | +                                     | 0.2  | .....  |
| Average monthly wages of teachers in 42 States:                    |               |               |                                       |  |        |
| Males .....  | \$44.76       | \$46.82       |                                       |  |        |
| Females .....  | \$37.48       | \$39.41       |                                       |  |        |
| Number of schoolhouses .....                                       | 236,529       | 237,416       | +                                     | 887  | + 0.38 |
| Value of school property .....                                     | \$425,024,341 | \$439,071,690 | +                                     | \$14,047,349                                 | + 3.30 |
| II.—Financial statistics.  |               |               |                                       |  |        |
| Receipts:  |               |               |                                       |  |        |
| Income from permanent funds .....                                  | \$8,486,052   | \$8,336,612   | —                                     | \$149,440                                    | — 1.76 |
| From State taxes .....   | 33,074,152    | 33,252,941    | +                                     | 178,789                                      | + 0.54 |
| From local taxes .....   | 111,255,258   | 119,019,984   | +                                     | 7,764,726                                    | + 6.93 |
| From all other sources .....                                       | 14,235,930    | 16,988,154    | +                                     | 2,752,224                                    | +19.33 |
| Total revenue .....  | 167,051,392   | 177,597,691   | +                                     | 10,546,299                                   | + 6.31 |
| Per cent of the total revenue derived from—                        |               |               |                                       |  |        |
| Permanent funds .....  | 5.1           | 4.7           | —                                     | 0.4  | .....  |
| State taxes .....  | 19.8          | 18.7          | —                                     | 1.1  | .....  |
| Local taxes .....  | 66.6          | 67.0          | +                                     | 0.4  | .....  |
| All other sources .....  | 8.5           | 9.6           | +                                     | 1.1  | .....  |
| Expenditures:  |               |               |                                       |  |        |
| For sites, buildings, furniture, libraries,<br>and apparatus ..... | \$29,237,231  | \$31,900,525  | +                                     | \$2,663,294                                  | + 9.11 |
| For salaries of teachers and superintend-<br>ents .....            | 108,520,730   | 113,664,874   | +                                     | 5,144,144                                    | + 4.74 |
| For all other purposes .....                                       | 32,626,212    | 32,650,157    | +                                     | 23,945                                       | + 0.07 |
| Total expenditure .....  | 170,384,173   | 178,215,556   | +                                     | 7,831,383                                    | + 4.60 |
| Expenditure per capita of population .....                         | \$2.51        | \$2.59        | +                                     | \$0.08                                       | .....  |
| Expenditure per pupil:   |               |               |                                       |  |        |
| For sites, buildings, etc .....                                    | \$3.18        | \$3.40        | +                                     | \$0.22                                       | .....  |
| For salaries .....   | 11.81         | 12.11         | +                                     | .30  | .....  |
| For all other purposes .....                                       | 3.56          | 3.47          | —                                     | .09  | .....  |
| Total .....  | 18.55         | 18.98         | +                                     | .43  | .....  |
| Per cent of the total expenditure devoted to—                      |               |               |                                       |  |        |
| Sites, buildings, etc .....  | 17.2          | 17.9          | +                                     | 0.7  | .....  |
| Salaries .....   | 63.7          | 63.8          | +                                     | 0.1  | .....  |
| All other purposes .....   | 19.1          | 18.3          | —                                     | 0.8  | .....  |
| Average expenditure per day for each pupil<br>(in cents):          |               |               |                                       |  |        |
| For tuition .....  | 8.5           | 8.6           | +                                     | 0.1  | .....  |
| For all purposes .....   | 13.3          | 13.4          | +                                     | 0.1  | .....  |

## Total number of pupils and students of all grades in both public and private schools, 1894-95.

NOTE.—The classification of States made use of in the following table is the same as that adopted by the United States census, and is as follows: *North Atlantic Division*: Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, and Pennsylvania. *South Atlantic Division*: Delaware, Maryland, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, and Florida. *South Central Division*: Kentucky, Tennessee, Alabama, Mississippi, Louisiana, Texas, Arkansas, and Oklahoma. *North Central Division*: Ohio, Indiana, Illinois, Michigan, Wisconsin, Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, and Kansas. *Western Division*: Montana, Wyoming, Colorado, New Mexico, Arizona, Utah, Nevada, Idaho, Washington, Oregon, and California.

| Division.                    | Pupils receiving elementary instruction (primary and grammar grades). |                              |         | Pupils receiving secondary instruction (high-school grade). <i>a</i> |  |        | In universities and colleges. <i>c</i> |          |          | In schools of medicine, law, and theology. <i>e</i> |           |           | In normal schools. <i>g</i> |           |           |
|------------------------------|---|------------------------------|---------|--|--|--------|--|----------|----------|---|-----------|-----------|-----------------------------|-----------|-----------|
|                              | Public.   | Private (largely estimated). | 4       | Public. <i>b</i>   | Private (in preparatory schools, academies, seminaries, etc.). | 5      | Public. <i>d</i>                       | Private. | Total.   | Public. <i>f</i>                                    | Private.  | Total.    | Public.                     | Private.  | Total.    |
|                              |   |                              |         |  |  |        |  |          |          |   |           |           |                             |           |           |
| <b>I</b>                     | <b>2</b>  | <b>3</b>                     |         |  |  |        | <b>6</b>                               | <b>7</b> | <b>8</b> | <b>9</b>  | <b>10</b> | <b>11</b> | <b>12</b>                   | <b>13</b> | <b>14</b> |
| The United States .....      | 13,851,653  | 1,092,873                    | 361,370 | 173,342  | 51,518   | 24,524 | 68,105                                 | 92,629   | 6,247    | 47,305  | 53,552    | 36,276    | 21,927                      | 658,203   |           |
| North Atlantic Division..... | 3,302,271   | 466,002                      | 112,921 | 27,743   | 4,469  | 24,678 | 29,147                                 | 189      | 19,664   | 19,853  | 14,063    | 2,583     | 16,586                      |           |           |
| South Atlantic Division..... | 1,960,057   | 83,750                       | 21,635  | 27,743   | 3,322  | 9,919  | 13,241                                 | 763      | 5,754    | 6,517   | 3,097     | 1,640     | 4,737                       |           |           |
| South Central Division.....  | 2,691,192   | 134,428                      | 29,584  | 37,213   | 2,576  | 11,269 | 13,845                                 | 701      | 3,766    | 4,467   | 3,059     | 2,742     | 5,801                       |           |           |
| North Central Division.....  | 5,235,770   | 364,026                      | 176,677 | 52,378   | 11,268   | 19,397 | 30,465                                 | 3,807    | 17,133   | 20,940  | 13,710    | 14,288    | 27,998                      |           |           |
| Western Division.....        | 662,363   | 44,667                       | 20,553  | 9,490  | 2,889  | 2,842  | 5,731                                  | 787      | 1,775    | 2,407   | 674       | 3,081     |                             |           |           |

*a* Including pupils in preparatory or academic departments of higher institutions, public and private, and excluding elementary pupils, who are classed in columns 2 and 3.  
*b* This is made up chiefly from the returns of individual high schools to the Bureau, and is considerably too small, as there are a great many secondary pupils outside the completely organized high schools whom there are no means of enumerating.

*c* Including colleges for women, agricultural and mechanical (land-grant) colleges, and scientific schools. Students in law, theological, and medical departments are excluded, being tabulated in columns 9-11. Students in academic and preparatory departments are also excluded, being tabulated in columns 4 and 5.  
*d* Mainly State universities and agricultural and mechanical colleges.

*e* Including veterinary and nurses' training schools.  
*f* Mainly in schools or departments of medicine and law attached to State universities.

*g* Nonprofessional pupils in normal schools are included in columns 4 and 5.  
*h* Private normal schools are, with few exceptions, scarcely superior to the ordinary secondary schools.

*i* There are, in addition to this number, 22,335 students taking normal courses in universities, colleges, and high schools. (See p. 141 of this report.)



Total number of pupils and students of all grades in both public and private schools, 1894-95—Continued.

| Division.                    | Summary of higher instruction. |          | Summary of pupils by grade. |                 |           |            | Summary.  |            | Grand total. |
|------------------------------|--------------------------------|----------|-----------------------------|-----------------|-----------|------------|-----------|------------|--------------|
|                              | Public.                        | Private. | Elemen-<br>tary.            | Second-<br>ary. | Superior. | Public.    | Private.  |            |              |
|                              |                                |          |                             |                 |           | 20         | 21        |            |              |
| I                            | 15                             | 16       | 17                          | 18              | 19        | 20         | 21        | 22         |              |
| The United States.....       | 67,047                         | 137,337  | 14,944,526                  | 539,712         | 204,384   | 14,280,070 | 1,408,552 | 15,688,622 |              |
| North Atlantic Division..... | 18,661                         | 46,925   | 3,768,273                   | 164,439         | 65,586    | 3,433,853  | 564,445   | 3,998,298  |              |
| South Atlantic Division..... | 7,182                          | 17,313   | 2,043,807                   | 49,378          | 24,405    | 1,988,874  | 128,806   | 2,117,680  |              |
| South Central Division.....  | 6,386                          | 17,777   | 2,825,620                   | 66,797          | 24,113    | 2,727,112  | 189,418   | 2,916,530  |              |
| North Central Division.....  | 28,785                         | 50,818   | 5,399,796                   | 229,055         | 79,603    | 5,441,232  | 467,222   | 5,908,454  |              |
| Western Division.....        | 6,083                          | 4,504    | 707,030                     | 30,043          | 10,587    | 688,939    | 58,061    | 747,000    |              |

In my last report I commented on the extraordinary increase in enrollment shown by the returns for 1893-94—an increase of 425,258 in the public elementary and secondary schools, and the largest increase for any one year ever recorded in the nation. It was explained that this gain occurred during a wide spread business depression, and that it indicated the wise endeavor on the part of the people to make up for the loss occasioned by irregular and uncertain wages by sending to school not only the younger children, but also their older children, temporarily thrown out of occupation as wage earners.

The percentage of the total population enrolled in the public schools was 20.65, as compared with 20.53 of the previous year—a slight increase over that year. This percentage of school pupils has increased from 19.67 in 1879-80. There are, it would appear, in every 10,000 persons 98 more enrolled in school than in 1880.

It is noticeable that the average number of days in the school year has increased slightly, namely, 141.4 compared with 139 of last year. This is the largest average ever reached in this country. There has been also, it would appear, a slight increase of monthly wages for the teachers. In the following tables I show the increase of amount of schooling afforded each citizen in the several parts of the country. The first table includes the amount of schooling given in both private and public schools, and the second the amount given in the public schools only. This is a very interesting table, as it shows at a glance the net result of the entire school system of the country. It would appear that at the rate of attendance on the schools the past year the entire population is receiving an average of  $4\frac{3}{4}$  years of 200 days each. This is certainly not a very large amount, but in the comparative table it will be seen that there has been a very considerable increase since 1870, when the total amount of schooling received in public and private schools was only 3.32 years of 200 days each. It is of interest to name the eight States that lead in the matter of average amount of education: Massachusetts furnishes 8.04 years per inhabitant; Connecticut, 7.31 years; New York, 6.83 years; Rhode Island, 6.76 years; Ohio, 6.59 years; Iowa, 6.33 years; Illinois and New Jersey, 6.29 years.

A calculation of the amount received in the schools of the German Empire shows that the entire population was receiving in 1893 an average of 7.2 years of 200 days each. It should be mentioned that this item includes only the amount given in the elementary schools. It should be slightly increased to include secondary instruction and instruction in the universities.

*Average total amount of schooling (including all grades, both public and private) each individual of the population would receive under the conditions actually existing at the different dates given below.*

[Expressed in years of 200 school days each.]

|                              | 1870. | 1880. | 1890. | 1891. | 1892. | 1893. | 1894. | 1895. |
|------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| United States.....           | 3.32  | 3.59  | 4.41  | 4.51  | 4.41  | 4.48  | 4.63  | 4.75  |
| North Atlantic Division..... | 4.98  | 5.77  | 5.94  | 6.04  | 6.08  | 6.09  | 6.32  | 6.54  |
| South Atlantic Division..... | 1.20  | 2.13  | 2.68  | 2.72  | 2.68  | 2.73  | 2.90  | 2.85  |
| South Central Division.....  | 1.09  | 1.81  | 2.48  | 2.60  | 2.62  | 2.58  | 2.88  | 2.88  |
| North Central Division.....  | 4.00  | 4.75  | 5.28  | 5.37  | 5.14  | 5.30  | 5.30  | 5.46  |
| Western Division.....        | 3.46  | 4.06  | 4.44  | 4.65  | 5.00  | 4.83  | 4.92  | 5.21  |

*Average total amount of schooling received per inhabitant, considering only public elementary and secondary schools.*

[Expressed in years of 200 school days each.]

|                              | 1870. | 1880. | 1890. | 1891. | 1892. | 1893. | 1894. | 1895. |
|------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| United States.....           | 2.91  | 3.45  | 3.85  | 3.93  | 3.97  | 3.99  | 4.13  | 4.24  |
| North Atlantic Division..... | 4.43  | 4.84  | 4.99  | 5.06  | 5.10  | 5.10  | 5.28  | 5.50  |
| South Atlantic Division..... | 0.80  | 1.90  | 2.42  | 2.46  | 2.45  | 2.51  | 2.70  | 2.66  |
| South Central Division.....  | 0.78  | 1.57  | 2.20  | 2.31  | 2.41  | 2.38  | 2.64  | 2.65  |
| North Central Division.....  | 3.71  | 4.19  | 4.67  | 4.74  | 4.75  | 4.84  | 4.85  | 5.00  |
| Western Division.....        | 2.77  | 3.57  | 3.98  | 4.16  | 4.46  | 4.39  | 4.49  | 4.76  |

#### CITY SCHOOL SYSTEMS.

The consolidated statistics of 574 city school systems are included in Chapter I, pages 14 to 17; the statistics of the individual city systems are given in Part III. Since villages are constantly growing into cities the list increases from year to year. This increase should be borne in mind in making comparison of the present with former years. It is understood that with the growth of cities there is an improvement in the schools. From the unclassified school, wherein the teacher receives all grades of pupils from *a b c's* to algebra, the village makes progress to the graded school or union school, wherein pupils are classified and separate teachers provided for each grade. Longer time may be given to the work of the recitation in the graded school and the pupil taught how to study his lesson, and how to overcome its difficulties. From the village to the city there is continual progress in grading and classification. In Table No. 5, page 16, the ratio of attendance on public schools compared with private and parochial schools is shown.

#### SECONDARY SCHOOLS.

The tables given in Chapter II, showing the attendance on public high schools and private academies and seminaries so far as secondary instruction is concerned, show 22,681 teachers instructing 468,446 pupils in the 6,892 schools of this grade; 4,712 of these are public high schools and 2,180 are private academies or seminaries. It is interesting to note

that 17 per cent, or one-sixth of the pupils, were preparing for college. Nearly one-half of all these pupils were studying Latin, and about one-twentieth of the number were studying Greek. The circulars of inquiry sent out from this Bureau requested a specification of the studies which the pupils returned as secondary were pursuing. A list of these secondary studies will be found in Chapter II (pp. 23-25). In the comparative table, page 20, showing the records of secondary pupils for several years, there will be found great discrepancies, due in part to the change on the part of this Bureau of its definition of the term "secondary instruction." Formerly the Bureau accepted the classification as made by the several schools, and in many cases pupils in elementary studies were reported as secondary pupils for no other reason apparently than because they attended the building in which secondary instruction was conducted. By degrees this Bureau has been able to sift out the elementary pupils from the secondary pupils in the returns, and now offers a much more accurate exhibit of secondary work in the country than formerly. But it must be confessed that the secondary schools proper do not contain all of the pupils receiving secondary instruction. Just as many secondary schools, so called, contain elementary pupils, so some elementary schools give secondary instruction to individuals and even to classes. This is carried on to a greater extent in the Southern and Western States than in the North Atlantic and North Central States. What addition should be made to the figures here reported, to include all such secondary pupils, it is hazardous to estimate, but probably the number would fall much below 10 per cent of the entire number reported in the tables.

## NORMAL SCHOOLS.

In Chapter III (pp. 107-148) the consolidated statistics of normal schools are given. There were 80,839 students in the country pursuing training courses for teachers. Of this number perhaps 12,000 per annum may be counted as graduates. To supply the places made vacant in a corps of teachers of 400,000, besides filling the positions in new schools opened during the year, upward of 60,000 teachers are required. Hence the supply from the professional schools is sufficient only to furnish one-fifth of the teachers demanded. But it must be remembered that professionally trained teachers remain in the work of teaching much longer than the persons who take up the work as a makeshift; hence out of the 400,000 teachers employed in the United States there is a much larger proportion of the former than the supply from normal schools would seem to indicate. In some States the number of teachers professionally trained exceeds 50 per cent of the entire number.

Another table gives the names of the universities and colleges in which training courses for teachers are provided. Their number has increased from 114 colleges in 1890, with an enrollment of 3,414 students in the normal department, to 192 in 1895, with 6,402 normal students.



Twenty-seven universities have regularly organized departments of pedagogy, and offer professional training of a high character in courses of study extending over four years and leading to degrees of pedagogy. In Chapter III will be found an interesting table outlining the course of pedagogy offered in each of the twenty-seven institutions.

#### HIGHER EDUCATION.

*Universities and colleges* (pp. 149-169).—The total number of universities and colleges for men and for both sexes reporting to this office during the year was 481, each State and Territory being represented by at least one institution. The number of instructors reported by these institutions was 11,582, while the number of students of all classes was 149,939. Of the latter number 46,098 were enrolled in preparatory departments, 63,402 in collegiate departments, 4,273 in graduate departments, and 23,567 in professional departments. The property reported was as follows: Volumes in libraries, 6,092,673; value of material equipment, \$129,025,653; productive funds, \$102,574,808. The benefactions amounted to \$5,350,963, and the total income, excluding benefactions, was \$16,783,638.

*Colleges for women* (pp. 169-177).—The 163 colleges for women had, in 1894-95, 2,425 instructors and 24,193 students. The material equipment was valued at \$15,919,990, and the endowment funds at \$5,172,767. The income was \$3,441,158, and the benefactions \$625,734.

*Schools of technology* (pp. 178-184).—The number of schools of technology, excluding technological departments of universities and colleges, was 51, having 1,217 instructors and 13,896 students. The material equipment was valued at \$15,522,676, and the productive funds at \$13,609,529. The income of these institutions was \$3,965,593, and the benefactions \$21,530.

*Professional schools* (pp. 235-255).—There were 149 schools of theology, with 906 professors, 8,050 students, and 1,598 graduates in 1894-95. During five years theological schools only increased by 7 and theological students by 700. More than three-fourths of the students were in the North Central and North Atlantic divisions. In the Western division there were only 80 theological students, the small number being attributable to the fact that the various denominations had already established theological schools in the older and more eastern States.

Law schools numbered 72—not quite half as many as theological; but while theological schools increased only 7, law schools increased 18 in number in five years; and while theological students increased only about 700 in number, law students increased 3,700. The number of law students was 8,950, and the number of graduates 2,717.

The address of Justice David J. Brewer, of the United States Supreme Court, before the American Bar Association, on "A better education the great need of the profession," is given in full, and



presents in a vivid manner the great influence of the legal profession in shaping the policy and determining the destiny of American institutions, and consequently the importance of a bar with liberal culture, professional honor, and the highest legal attainment.

Medical schools numbered 151, of which 113 were regular, 20 homeopathic, 9 eclectic, 2 physiomedical, and 7 graduate. Medical students number more than twice those in either law or theology, viz, 22,887, of whom 18,660 were in regular schools, 1,875 in homeopathic, and 732 in eclectic. Notwithstanding the lengthening of the medical course to three years, and afterwards to four years in many schools, and notwithstanding the rigid medical practice requirements already adopted in many States and still being adopted in others, the number of students has constantly increased in both regular and homeopathic colleges. The educational qualifications demanded of prospective physicians instead of affrighting students seem only to have enhanced their appreciation of a medical diploma and of a State license.

Schools of dentistry numbered 45, and dental students 5,347, more than 2,000 over the number attending five years before. While the adoption of a three years' course in dentistry did not diminish the number of students, it has diminished the number of graduates, the number in 1894-95 being practically the same as the number four years before.

Schools of pharmacy numbered 39, with 3,859 students, about 1,000 more than five years before.

Schools for the training of nurses numbered 131, while the number in 1890-91 was only 34. In fact, the nurse training school is comparatively a new institution. It was not many years ago when one of the largest hospitals in New York City found it necessary to advertise for what at that time even was considered a competent nurse. In the Southern and far Western States trained nurses are even at this time uncommon. In the South Atlantic Division, in 1894-95, there were only 11 training schools, and most of these were in the border cities—Washington and Baltimore. In the South Central Division there was only 1, and in the Western only 3. New schools are rapidly being organized, however, as is indicated by the addition of about 25 new names to the list since the table in this report was compiled.

## GREAT BRITAIN AND IRELAND.

Two events of unusual importance have occurred in England during the scholastic year 1894-95. One of these is the revival of the question of religious instruction in board or public elementary schools, and in general the relation of the State to denominational or parochial schools; the other is the publication of the report of the Royal Commission on secondary education. The question of religious instruction was unexpectedly revived in the London School Board just before the crisis that brought the conservative party again into control of the Government. As this party had made pledges to secure favorable legislation for

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denominational schools, the agitation in the metropolis became part of a controversy which has extended over the whole country. An important principle is involved in the effort to secure increased public aid for schools under private management, namely, that of the application of public funds where public control can not follow. A large proportion of the English people are opposed to such a policy, and even extreme advocates of denominational schools realize that it is dangerous to provoke this contest. The outcome of the controversy can not be foreseen at this date. The events which have marked its inception and progress, as set forth in Chapter VI (pp. 257-273), are full of significance.

The growing activity of the State in educational matters is not only shown in its influence as an organizing power, but in the increase of appropriations from the public treasury. In a little less than two decades the Government grant to elementary schools in England has increased by nearly 300 per cent, and in Scotland in fourteen years by about 120 per cent. From this grant in 1894-95 was derived 67 per cent of the income for elementary schools in England and 73 per cent in Scotland. These estimates include the grant in lieu of fees allowed under laws of 1890 and 1891, and amounting to about one-third of the entire appropriation. Local taxes provide about one-fifth the income of elementary schools in England, and a little more than one-fifth in Scotland, leaving but a small balance in either division to be met from fees and voluntary subscriptions. The increase in enrollment in England far exceeds that in population. It is evident, indeed, that the purpose of the school law of 1870 to bring all the children of the country under school influences has been realized.

The total enrollment in England, 5,235,887, was equivalent to 17 per cent of the population; in Scotland, where the enrollment was 699,716, the ratio was slightly smaller, i. e., 16.6 per cent.

The enrollment in England was distributed as follows: Board schools, 42 per cent; Church of England schools, 44 per cent; Wesleyan schools, 3 per cent; Roman Catholic schools, 5 per cent, and British undenominational and other schools, 5.8 per cent.

The detailed statistics presented in Chapter VI illustrate the progress of the elementary school system in other particulars, notably the increase in the number of adult and certificated teachers, the development of night schools and the success of measures for freeing elementary education from mechanical routine.

#### THE MANITOBA SCHOOL QUESTION.

Chapter VII (pp. 275-288) presents a dispassionate statement of the legal aspects of the Manitoba school case, for which the office is indebted to Mr. Henry R. Alley, secretary to the minister of education for the Province of Ontario.

The principal events which have marked the progress of the case

since this statement was closed are added, and an introduction which sets forth in brief the peculiar local conditions that have to be met in the practical endeavor to establish and maintain schools. A feature of special interest to us is the mixture of peoples and of languages that are comprised in the sparse population of this border Province.

Here, also, as in our newly settled States, the difficulty of securing competent teachers is one of the most serious with which school authorities have to deal. Manitoba has shown a disposition to follow the precedent of Ontario in respect to provision for the training of teachers. The allowance for teachers' salaries is augmented by legislative and municipal grants—the former, \$130; the latter, from \$200 to \$400 annually for each teacher. With all wise provisions, the existing obstacles to an adequate supply of competent teachers are not overcome. The Rev. Principal Grant, of Queen's College and University, Kingston, Ontario, has given a graphic picture of these conditions in his report of a recent tour of investigation through the Province. Citations from the report serve to emphasize the indications of the official statistics presented in the introduction.

#### EDUCATION IN FRANCE.

Chapter VIII (pp. 289–312) presents the latest published statistics of education in France, which show for elementary schools a slight decline in enrollment during the five years 1887 to 1892. This decline, it may be observed, is not entirely accounted for by the decrease in population, since in 1886–87 there were 1,446 pupils for every 10,000 inhabitants, whereas in 1891–92 the corresponding number had fallen to 1,434. The number of teachers has increased by 8,019, or 6 per cent, during the half decade, and the total expenditure for elementary education in the same time by 7½ per cent. The State having assumed the payment of teachers' salaries, bore 84 per cent of the total expenditure in 1892, as against 48.9 per cent in 1887.

In the department of higher education the work of developing and reorganizing university courses continues. During the present year the doctorate of law has been constituted in two forms, i. e., the doctorate of legal science, and the doctorate of political and economic science. The course in law has been correspondingly divided. Moreover, the elective principle has been admitted to a slight degree in each course. Thus efforts dating as far back as 1789 to secure State recognition for studies relating particularly to the demands of modern society have been brought to a successful close.

The most important recent movement pertaining to popular education is that for the instruction of adults. Schools and classes for adults have been maintained, either by church or state or private agencies, for nearly two centuries. The present Government fostered these enterprises for a while as a means of overcoming illiteracy, but as elementary education spread this particular need passed away, and classes

for adults declined. The movement for their revival which has suddenly engaged attention has a different end in view.

The belief that crime is increasing among the youth of France is widespread, and the tendency is recognized as a grave peril to the State. One cause of this evil is found in the lack of restraints during the susceptible and wayward years of adolescence. It is chiefly as a means of building up character and of developing an interest in useful pursuits that provision for continued education is urged. Private societies are leading the work, which has also the full support of Government.

Chapter VIII presents also a survey of the movement for the admission of American students to French universities. Through the efforts of Prof. H. Furber, of Chicago, and the cooperation of leading university men in France, a Franco-American committee has been formed to devise practical measures for bringing the university honors of France within the reach of students from this country. An American advisory committee has also been formed, under the presidency of Prof. Simon Newcomb, whose counsels will have great weight in determining the concessions that shall be made in the interests of our students. Already a measure has been secured which enables students from the United States to enter the faculty of sciences as candidates for the degree of licentiate on the basis of their American diplomas. After this degree is attained, the doctor's degree may be secured on substantially the same terms as in Germany.

#### BELGIUM.

The passage of a new school law for Belgium is one of the most notable events of the year. Religion, which under the liberal law of 1879 was excluded from the programmes, was restored by the conservatives as an optional branch in 1884, and now, under the new law bearing date September 15, 1895, is made obligatory in all elementary schools. Moreover the subject is confided to the care of the clergy of the several denominations, who must give the instruction or designate the proper person for the duty. The law encounters great opposition in the cities and its effects will be followed with deep interest in all countries.

The chief provisions of the law are cited in Chapter IX (pp. 313-319), which comprises also a brief view of the educational system of Belgium, with statistics showing its progress and present status.

#### EDUCATION IN CENTRAL EUROPE.

Chapter X (pp. 321-470) contains, under the caption "Education in central Europe," first, a translation of Prof. W. Rein's article on "The new education in Germany," which sets forth the chief features of Herbart's system as advocated by his disciples at the present day. Professor Rein succeeded Professor Stoy at the university of Jena, and is considered an authority on education, according to Herbart.

A translation of an article by Dr. Fr. Dittes, of Vienna (formerly



school councilor in Gotha and president of the City Normal College of Vienna), who writes under the caption "Is German pedagogy in a state of decomposition?" shows the other side of the question as seen in Germany.

The account of the Berlin city school system contained in last year's annual report is continued in this volume by a statement of supplementary and industrial schools in Germany, especially in Berlin. These schools are a feature of the German educational system with which the American public is not very familiar. The only element of our system that may be compared with them is found in our city evening schools.

The German school authorities endeavor to prepare for skilled labor and thus increase the productiveness of their sources of wealth. The value of the account is enhanced by the addition of extracts from reports sent to the State Department by the consul-general of the United States and courteously loaned to the Department of the Interior.

The question of how to improve the rural schools, at present much discussed by teachers in this country, has suggested a presentation of the status of rural schools in Germany, their organization, course of study, methods of teaching, and means of instruction. The monitorial system of teaching has been suggested as containing hints for methods of instruction. The article in this report on "Rural and ungraded schools in Germany" contains a statement of the value and the mode of application of the so-called Bell-Lancaster system of employing pupil teachers or utilizing advanced pupils in keeping school or hearing lessons. The advantages and defects of this system are shown in an additional chapter containing authoritative expressions of German educators on this system.

Another interesting subject under discussion in educational gatherings is the course of study for elementary schools. The action of the National Educational Association in this direction was sketched in last year's report. The problem of finding the relative value of studies has of late agitated the minds of German teachers as well, as is seen from an inquiry into the courses prescribed in sixteen German cities, here given in an English translation. The relative value of the various branches of instruction is expressed in the numbers of lessons assigned to them. This, of course, does not consider the personal element, the teacher, nor should that element be considered in this connection. Mr. J. Tews, of Berlin, collected these courses and presented them in a comparative table to the readers of the *Paedagogische Zeitung* (Berlin).

The annual report for 1891-92 contained a statement of the history and methods of training teachers in central Europe, in which the normal schools of Switzerland were duly mentioned, but not described. The present chapter treats of them more fully and enters into detail. The Swiss school system, like ours, is not a federal system, but is established, maintained, and regulated by the separate States, called Cantons in Switzerland.

The eighth part of this chapter is devoted to an account of the animated discussion of "Mental fatigue in school," going on at present in Germany. It has been claimed that secondary schools in Germany are overworking their pupils. Representatives of the science of hygiene, feeling themselves called upon to substantiate these charges, subjected some schools to a rigid test. Noted professors, such as Burgerstein in Vienna, Hoepfner in Berlin, Kraepelin in Heidelberg, Richter in Halle, and others, are made to contribute to this symposium with excerpts from their publications, which are based upon actual tests made in school. The burden of argument in defense of the school is borne by Professor Richter, who published his impressive deductions from the results of tests in a periodical, entitled *Lehrproben und Lehrgaenge*. The problem is not yet solved, since few of the contributors to the discussion seem to take into consideration the climatic effects, locality of the school and home, and individual predisposition of the pupils.

Another contribution to this chapter consists of a translation of Prof. Stephan Waetzoldt's paper, entitled "National features of female education," in which he states that he who has accustomed himself to understand historically that which exists in the education of a people, and compares it with the work and the results of other nations upon similar lines, will not be apt to believe in the possibility or utility of borrowing by one nation from another without extensive modifications and adaptations; every educator will try to understand and to explain, but will refrain from copying, for in the end every nation finds that which is best adapted to its needs, and finds it in its own way. This truth he proves by showing how the types of woman's education have developed in France, Germany, England, and the United States. His valuable criticism of American education already published (in translation) in the annual report of this Bureau for 1892-93 has created a timely interest in the present article. The fact that Professor Waetzoldt's article appears in the official organ of the Prussian minister of public instruction indicates the weight that the Government gives to the author's opinion.

#### TEACHERS' PENSIONS.

There has also been prepared for this report a chapter on teachers' pensions and annuities (Chapter XX.) This is, at present, a question which is agitating teachers and legislators. In order to show what has been done in this line, a statement of the laws and regulations in force in this country is offered, together with the *modus operandi* of independent efforts on the part of teachers' annuity societies. It may astonish the adherent of the so-called American maxim, "no pensions for civil officers," to notice how often this principle has been set aside in recent times by State laws and municipal ordinances. To teachers who desire information as to how to proceed in framing constitutions and by-laws of annuity societies, and who may wish to submit bills for pension laws, the present chapter may be serviceable. It is noticeable that

in the city of New York the fractions of salary forfeited by teachers or other school employees, owing to absence from duty, together with 1 per cent of all the salaries, which is retained for the purpose, are sufficient to create a fund for the retirement of old or incapacitated teachers, which fund has assumed considerable proportions—about \$65,000.

#### THE NETHERLANDS.

In Chapter XI (pp. 475-542) the specialist discusses education in the Netherlands and commences with a brief historical introduction, tracing the rise of education in that country. Many statistics are presented showing the number and kinds of primary and secondary schools, the number of pupils of each sex attending, the cost and sources of revenue, whether from the treasuries of the communes and provinces or the general treasury of the State. The specialist has also compared the attendance and cost of these schools in 1889-90 and in 1893-94, showing in most cases a gratifying increase in school facilities. Brief statements on the organization, apparatus, and courses in the universities, with statistics of attendance, are added.

#### EDUCATION IN ITALY.

The chapter on education in Italy (pp. 543-582) includes comparative statistical tables by Dr. Egisto Rossi, author of a work on public instruction in the United States. It also contains a reprint of an article on the Catholic schools of Rome by His Eminence Cardinal Satolli, and university statistics for 1894-95 by Professor Ferraris, of the University of Padua. The status of the schools of Leghorn in 1893 and the scientific and professional associations of Rome are presented by recent members of our consular service.<sup>1</sup> These are followed by a résumé of current educational movements to date of 1895, and by historical data which give the different phases of educational progress.

In the thesis of Dr. Rossi the growth of infant schools is indicated. In 1862 there were 1,673, with 71,054 pupils, which increased to 2,296 in 1890, with 278,204 pupils. The elementary schools had 885,152 enrolled in 1862 and 2,188,930 in 1890. The interest in education manifested by the working classes is indicated by the fact that 100,002 persons were in attendance in the holiday schools in 1890, compared with 16,031 in 1862; evening schools, 108,170 students in 1862 to 196,846 in 1890. There are to-day five times as many students preparing in normal schools for the teacher's profession as were found in 1862. State secondary schools (*Ginnasi* and *Licei*) have fully three times as many students as in the sixties; State technical schools, nine times as many students—2,200 in 1862 to 19,219 in 1890 (in 1893 there were 21,833 students). Students in State technical institutes and in schools fitting for the merchant marine increased fivefold in these years. In

<sup>1</sup>Furnished this office by the Bureau of Statistics of the Department of State (See pp. 564, 576.)



university studies there were about 11,063 students in 1866-67; in 1894-95 Professor Ferraris points out that there were 23,140 students pursuing university courses, over 21,000 being in the faculties, 1,359 in the annexed schools for engineering, 577 in veterinary schools, and 172 in schools of agriculture annexed to the universities.

The supreme control of the Catholic schools of Rome is vested in the cardinal vicar, but he is assisted by the pontifical commission, appointed by the Pope in 1878, and by special committees, each independent of the other, but all subject to the pontifical commission. In immediate charge are the directors of free and pay schools, a council of direction for higher and technical schools, and there are schools belonging to religious corporations which are somewhat independent of these commissions, although following their regulations. Normal schools prepare the teachers needed, and there are numerous secondary and technical schools. Higher grade institutions for the study of literature, history, and jurisprudence are under charge of men noted for literary or scientific attainments. For pupils coming from the provinces there are boarding schools. Elementary and industrial instruction is given in charitable institutions for orphans and other dependent classes. These are in charge of brotherhoods or sisterhoods. There are also art, trade, and professional schools brought before the Italian Congress. Commissions have been appointed for the further promoting of manual and physical training in the schools, to discuss the modifications of elementary school programmes so as to do away with "arid processes," and to establish schools complementary to the elementary grades. The subject of examinations for entrance to secondary schools has been decided so that pupils holding elementary grade certificates (*licenza elementare*) are not required to pass still other examinations before continuing their course in secondary grades.

#### REPORT OF ROYAL COMMISSION ON SECONDARY EDUCATION.

Chapter XIII (pp. 583-620) deals with the report of the Royal Commission on secondary education. The causes that led to the appointment of the commission are reviewed briefly and a synopsis of their principal recommendations presented. These look to the creation of local authorities charged with the distribution of the public funds that may be devoted to secondary education, and with authority also to secure adequate provision for secondary education within their respective provinces and subject to the central authority. In the new order this central authority would be raised to the dignity of an executive department presided over by a minister, and would absorb all the educational functions of the Government which are now divided between the education department, the science and art department, and the charity commissioners. An advisory council of professional experts is a proposed feature of the central organization.

Incidentally, the report of the commissioners gives a detailed view

of the present system of secondary instruction in England, the multiplicity of its agencies, and the strong and weak points in their conduct and outcome.

The bearing of the work of the commission is made clearer by digests of the evidence of the principal witnesses examined by the commission. Here are brought into view the various interests affected by proposed legislation in this province, and the opinions of representative men and women as to the means of securing an effective organization of the diverse agencies now engaged in the work without crippling them or interfering with their rights. As the testimony on these points covered 1,500 octavo pages and included 18,000 questions and answers, it was manifestly impossible to reduce the whole to a few pages. It was found that the testimony calculated to interest and to be understood by an American reader was in general given by persons deputed by technical associations, guilds, or school bodies intimately connected with the conduct of English elementary or secondary education, and that a running statement of the testimony given by such deputies would substantially represent the condition of secondary education in England and the manner in which responsible and informed persons thought that whatever was objectionable in those forms of education could be remedied.

Chapter XIV (pp. 621-712) continues the same subject and reprints various reports made by persons appointed by the Royal Commission to examine certain phases of education. It includes the report of Mr. J. J. Findlay on certain features of secondary education in the United States. He states that his purpose is to show the merits of our system, and his work is of value because it brings our method into comparison with English ways of dealing with the same problems. This report is followed by the answers to various questions on secondary education sent to Canada and the United States, and includes the reply of President Eliot, of Harvard University, in full. This is followed by Dr. J. G. Fitch's discussion of the training of teachers in England and Mr. M. E. Sadler's report on the leaving examinations as conducted in secondary schools in Prussia, a paper of value to us in view of the efforts we are making to find a proper adjustment between college and preparatory schools.

#### EDUCATION IN POLAND.

Professor Schoenfeld presents a review in Chapter XV (pp. 713-792) of higher education in Russian, Austrian, and Prussian Poland. This review is introduced by a historical statement dealing with the intellectual and literary life in Poland while its autonomy was still intact. The extent of Poland, the structure, beauty, and strength of its language, the founding of the University of Cracow, the rise of Polish schools at the time of the Protestant Reformation, the work of John Amos Comenius, the revival and the renationalization of public instruction by Stanislas Konarski in the eighteenth century are traced briefly.



This is followed by sections dealing with the present condition of higher education in Russian, Austrian, and Prussian Poland, in which the methods and aims of each of these Governments are pointed out. Attention has also been given to the materials for the history of Poland gathered in the various libraries of that country, public and private.

#### UNIVERSITY EDUCATION OF WOMEN IN ENGLAND.

A chapter has been prepared for this report on "Facilities for the university education of women in England" (pp. 805-891). This movement was preceded by the establishment of "local examinations"—first for boys and then for girls—held by the "delegacy for local examinations," which has the business part of all women's examinations in charge. The Oxford Association for the Education of Women makes the arrangements for instructing women who desire to be trained at Oxford, and by the appointment on its council of representatives from women's colleges it informally licenses these colleges. The first scheme for lectures and classes at Oxford dates from 1865; a new plan developed in 1873; in 1884 the first university examinations were open to women, and in 1893 the educational committee of the Association for the Education of Women was formed. Women may attend lecture courses at Oxford independent of this association, but their prospects are better if they are connected with it. The examinations leading to a degree in arts (which at Oxford include law, science, and theology) are open to women, but not the medical examinations. The regulations and studies for the B. A. examinations are fully described. The methods of study include university lectures by professors, readers, and tutors; also lectures provided by agreement among the different colleges, and there are lectures given for each college separately.

Somerville College, Lady Margaret Hall, and St. Hugh's Hall are described, and their purpose in the education of women indicated.

The woman movement at the University of Cambridge aimed "to place the work of women students on lines exactly parallel to those of the men." In 1881 the women's colleges—Girton and Newnham (which are fully described)—received their first formal acknowledgment from the university. Although degrees were refused, students who fulfilled certain conditions were admitted to "the previous and the tripos examinations." Such women students as have satisfied the examiners in a tripos examination receive a certificate from the university indicating the conditions of admission to examination. Women are not members of the university, but of colleges which, in their corporate capacity, are acknowledged by the university and have to submit to regulations laid down by the university. The real difference in the relative position of the men and women students is that the former may use B. A. and M. A., while the women receive only a diploma and can not claim a degree. They are admitted to the honors examination, but are excluded from the ordinary pass degree. The matter of exam-

inations is of the utmost consequence in English universities, the work of the classroom being but secondary. The real work at the women's colleges consists in the preparation for final honors examination (or triposes), and no student can present himself for a tripos more than once.

#### THE EDUCATIONAL STATUS OF WOMEN.

The aim of this chapter (pp. 893-976) is to present the conditions governing woman's education in different countries, as far as such information can be gained from authoritative sources—such as school laws, governmental reports, and other official publications. Discussions of the latest movements are presented; the date of the opening of foreign universities to women and the professions open to them, there and here, have been indicated.

#### THE CHAUTAUQUAN EDUCATION.

In his monograph on Chautauqua, a social and educational study (Chap. XIX), Prof. H. B. Adams treats this peculiarly American phase of university extension and summer school work with a fullness which it has never received before. Chautauqua is viewed as a social institution; its history is traced and its educational value emphasized; a third part is devoted to the new Catholic summer school of America.

Dr. Adams's work is complemented by a check list of American summer schools (Part II, Chap. XXXVI), in which the history of the summer school is briefly traced. This is followed by a bibliography of the subject and a list of such schools, with a brief statement of the scope of this work, the time of sessions, and the chief officer.

#### AGRICULTURAL AND MECHANICAL COLLEGES.

Chapter XXVI of Part II has been compiled as a general statement of the condition of the institutions endowed by the national land grants of 1862 and 1890. This statement is preceded by a historical review of the early attempts to introduce the subjects of physics, chemistry, manual arts, and agriculture.

#### AMERICAN MEDICAL SCHOOLS.

Dr. Marcel Baudouin, delegate from the French Government to the Chicago Exposition, visited a large number of medical schools and hospitals in the United States, including those as far west as San Francisco, Cal., and Portland, Oreg., and afterwards published an elaborate report upon the institutions visited. Some extracts from his report are presented (Chap. XXIX of Part II) in order to indicate how a competent observer, familiar with the conditions of professional instruction in Europe, has been impressed with institutions of like order in America.

Johns Hopkins Hospital, to which he says only one in Europe can be compared in hygienic resources and harmonious arrangement, the

Urban Spital at Berlin, receives a full description. The arrangement of this institution was not determined upon until after the presentation of many plans by architects and physicians and after many months spent by Dr. John S. Billings in the examination of hospitals in France and Germany. The intellectual culture and professional knowledge of the nurses, as well as the compensation received by them, also elicited comment.

The Woman's Medical College of Pennsylvania was taken as typical of the schools exclusively for women, and the medical school of the University of Pennsylvania as one of the oldest and most important in the United States.

Roosevelt and Bellevue hospitals, and Yale, Clark, Harvard, McLean, Cornell, Michigan, Colorado, and other schools and hospitals also receive attention.

#### THE SCHOOL DISTRICT.

The rapidly growing tendency to modify the character of the local school community makes of interest a study of the features of the school district as it appears in the several States. In Chapter XXXIV of Part II the character of the administration of school affairs is given for each State, especially with reference to the financial matters of each local community.

#### THE TRANSPORTATION OF CHILDREN.

A compendium of information relating to the transportation of children to and from school at the public expense is given in Chapter XXXV of Part II. Recourse has been had to transportation in several States in order to facilitate the work of consolidation of rural ungraded schools. The district system of management of school affairs, which was evolved in the laudable attempt to plant a school within the reach of every child, encouraged the establishment in thinly populated localities of numbers of small and weak schools, often having an average attendance of less than ten, sometimes of less than five pupils. This undue multiplication of small schools, resulting in a dilution of the school resources, has long been recognized as economically wasteful; that such schools are in addition pedagogically inefficient has been brought into prominence of late years through the contrast afforded by the modern graded school with its improved organization, equipment, course of study, methods of instruction, and management, and especially its well-trained and well-paid teachers. As the defects of the small district schools have become more apparent the tendency toward consolidating them into a system of strong, centrally located graded schools has become more pronounced.

The adoption of the town system of school management in several States has paved the way for consolidation; in fact, has been an indispensable preliminary, by bringing all the schools of each town under

one control. The chief difficulty now in the attempt to make one central school take the place of several scattered ones is to render such a union school accessible to all the pupils of the discontinued schools. The expedient of transporting at the public expense pupils who may live too far to walk has been resorted to on a considerable scale in Massachusetts and in a lesser degree elsewhere, and has been in general found to work satisfactorily. There is effected a saving of funds, while at the same time the children have the advantages of better schools. In the chapter to which I have referred have been collected reports of State and local school officials detailing their experience in the conveyance of pupils to school, which will be of use to those contemplating taking steps in that direction.

#### CONTRIBUTIONS TO EARLY EDUCATIONAL HISTORY OF THE UNITED STATES.

The Rev. A. D. Mayo contributes to the present report three chapters (XXXVII-XXXIX, of Part II) on the early history of the American common school. He treats with considerable fullness the history of the establishment of State school funds; education in the Northwest during the first half century of the Republic (1790-1840), and the American common school in New England for the same period.

#### OLD-FIELD SCHOOLS OF GEORGIA.

Chapter XLII of Part II contains a sketch of domestic, social, and school life in middle Georgia during the period of first settlement by the whites, and a description of the schools, known as "old-field schools," down to the founding of academies. In a region nearest the border of civilized and savage existence many were the straits to which the earliest settlers were subjected in their efforts at society organization, and particularly at obtaining for the young even rudimentary education. Some of those straits, somewhat peculiar because of remoteness from educational centers and other accidents in their condition, are described in this chapter. Characteristics, personal and professional, of old-time rural schoolmasters; their text-books, methods of teaching; their constantly varying, yet ever brief sessions; their discipline, direct and vicarious; their schoolhouses; their holidays, voluntary and enforced; games, dressing, etc., of school attendants. The account herein contained is founded upon entirely reliable reminiscences of many eminent Georgians whose educational beginnings were in those schools.

#### THE ATLANTA EXPOSITION.

The Cotton States and International Exposition in Atlanta, Ga., in the fall of 1895, was an event which attracted wide attention as a conspicuous example of the enterprise of the new South. The conditions seemed at the outset to be extremely unfavorable. The Columbian



Exposition at Chicago was still so fresh in the mind of every one that any similar effort would at once excite comparison with it, and without the tremendous resources and prestige of the Chicago undertaking it seemed folly to attempt another pretentious exposition so soon. Moreover, the country was in a state of financial depression that threatened disaster to new enterprises, and altogether there seemed little hope of creditable outcome to the affair. But such was the energy with which the idea was pushed and such was the public spirit of the people who supported it that a measure of success attended the Atlanta Exposition that was truly remarkable. It was not directly a financial success. Few expositions have been. But it did succeed in advertising the cities of the South and the resources of its agriculture and mines.

The report of the agent of this Bureau at the exposition is presented as Chapter XLIII of Part II. In it will be found a description of the exposition in general, a report of the exhibit of the Bureau of Education, and other papers.

#### ENGLISH TEXT-BOOKS ON THE AMERICAN REVOLUTION.

Chapter XLIV of Part II deals with English methods of teaching the history of the American Revolutionary war, and was prepared in accord with the suggestion of the Hon. Samuel Plimsoll, late member of Parliament and widely known for his efforts to alleviate the condition of the sailor. He believes that much ill feeling toward England has been engendered by the teachings of the school histories of the United States. Teachers of our national history in our schools will compare with interest the extracts from English text-books here given with the corresponding passages in our own text-books.

#### CONSULAR REPORTS.

Through the courtesy of The Honorable The Secretary of State, this office has been furnished with several valuable reports, made to the Consular Bureau of the State Department, devoted to the discussion of various features in the school systems of Germany, Italy, etc. The following are published in the present report: "Summary of the proceedings of the Educational Congress, Havre, 1895," by H. R. Bigelow, United States consul (pp. 303-305); "Public instruction in the Grand Duchy of Luxemburg," by Geo. H. Murphy, vice commercial agent (pp. 471-473); "Government pensions for public school teachers in Belgium," by Geo. W. Roosevelt, United States consul at Brussels (pp. 1105-1107).

I append hereto a list of the blank forms of inquiry sent out to obtain the statistics for the tables of this report.

I have the honor to be, very respectfully, your obedient servant,

W. T. HARRIS,  
*Commissioner.*

Hon. HOKE SMITH,  
*Secretary of the Interior.*



*List of blank forms of inquiry sent out.*

| Schedules.                          | Items. | Schedules tabulated. | Schedules mailed about — | Where information is tabulated in report for 1894-95.  |
|-------------------------------------|--------|----------------------|--------------------------|--|
| State systems.....                  | 20     | 50                   | 200                      | Tables 1-20, pp. XXXV-LVIII.   |
| City systems.....                   | 39     | 574                  | 1,200                    | Tables 1-5, Chap. I; detail tables in Part III.  |
| City and village systems.....       | 13     | 348                  | 1,000                    | Detail tables in Part III.   |
| Public secondary schools.....       | 46     | 4,712                | 15,000                   | Tables 1-10, 23-48, Chap. II; detail tables in Part III.                                     |
| Private secondary schools.....      | 46     | 2,180                | 7,500                    | Tables 11-22, 49-65, Chap. II; detail tables in Part III.                                    |
| Universities and colleges.....      | 38     | 481                  | 1,000                    | Tables 1-11, Chap. IV, pp. 153-169, and tables 1-19, pp. 188-206; detail tables in Part III. |
| Colleges for women.....             | 22     | 163                  | 400                      | Tables 1-7, Chap. IV, pp. 172-177, and tables 1-9, pp. 209-217; detail tables in Part III.   |
| Schools of technology.....          | 33     | 51                   | 100                      | Tables 1-5, Chap. IV, pp. 181-184, and tables 1-13, pp. 221-233; detail tables in Part III.  |
| University extension.....           | 6      | 16                   | 30                       | See Part III.  |
| Agricultural colleges.....          | 42     | 65                   | 100                      | Tables in Chap. XXVI; detail tables in Part III.   |
| Medical schools.....                | 17     | 151                  | 300                      | Tables in Chap. V; detail tables in Part III.  |
| Theological schools.....            | 15     | 149                  | 275                      | Tables in Chap. V; detail tables in Part III.  |
| Law schools.....                    | 15     | 72                   | 125                      | Tables in Chap. V; detail tables in Part III.  |
| Dental schools.....                 | 13     | 45                   | 90                       | Tables in Chap. V; detail tables in Part III.  |
| Schools of pharmacy.....            | 15     | 39                   | 75                       | Tables in Chap. V; detail tables in Part III.  |
| Veterinary schools.....             | 10     | 9                    | 15                       | Tables in Chap. V; detail tables in Part III.  |
| Schools for nurses.....             | 9      | 131                  | 300                      | Tables in Chap. V; detail tables in Part III.  |
| Normal schools.....                 | 27     | 356                  | 1,250                    | Tables 1-21, Chap. III; detail tables in Part III.   |
| Commercial schools.....             | 23     | 520                  | 1,200                    | Detail tables in Part III.   |
| Institutions for the blind.....     | 33     | 37                   | 150                      | Detail tables in Part III.   |
| Institutions for the deaf.....      | 37     | 88                   | 250                      | Detail tables in Part III.   |
| Institutions for feeble-minded..... | 33     | 27                   | 150                      | Detail tables in Part III.   |
| Reform schools.....                 | 33     | 91                   | 250                      | Detail tables in Part III.   |
| Schools for the colored race.....   | 25     | 162                  | 500                      | Chap. XXXI.  |



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STATISTICS OF STATE COMMON-SCHOOL SYSTEMS.

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ED 95—III

XXXIII



TABLE 1.—*The total population, the school population, and the adult male population.*

| State or Territory           | Estimated<br>total popu-<br>lation in<br>1895. | The school population.  |              |              | Percent-<br>age of<br>males. | Estimated<br>number of<br>males 21<br>years of<br>age<br>and over. |
|------------------------------|--|---|--------------|--------------|------------------------------|--|
|                              |  | Estimated number of children<br>5 to 18 years of age in 1895. |              |              |                              |  |
|                              |  | Males.  | Females.     | Total.       |                              |  |
| 1                            | 2  | 3   | 4            | 5            | 6                            | 7  |
| United States.....           | 63, 748, 950                                   | 10, 261, 625  | 10, 066, 522 | 20, 328, 147 | 50. 48                       | 18, 665, 410   |
| North Atlantic Division..... | 18, 894, 800                                   | 2, 409, 902   | 2, 391, 327  | 4, 801, 229  | 50. 20                       | 5, 484, 900  |
| South Atlantic Division..... | 9, 429, 400                                    | 1, 617, 360   | 1, 590, 590  | 3, 207, 890  | 50. 42                       | 2, 146, 540  |
| South Central Division.....  | 12, 259, 300                                   | 2, 154, 520   | 2, 097, 750  | 4, 252, 270  | 50. 67                       | 2, 821, 200  |
| North Central Division.....  | 24, 415, 000                                   | 3, 618, 090   | 3, 538, 070  | 7, 156, 160  | 50. 56                       | 6, 777, 900  |
| Western Division.....        | 3, 750, 450                                    | 461, 753  | 448, 875     | 910, 628     | 50. 71                       | 1, 434, 870  |
| North Atlantic Division:     |  |   |              |              |                              |  |
| Maine.....                   | 650, 100                                       | 80, 820   | 79, 080      | 159, 900     | 50. 53                       | 197, 900   |
| New Hampshire (1894).....    | 389, 000                                       | 43, 400   | 43, 300      | 86, 700      | 50. 06                       | 122, 100   |
| Vermont.....                 | 332, 560                                       | 42, 260   | 39, 710      | 81, 970      | 51. 55                       | 101, 769   |
| Massachusetts.....           | 2, 474, 000                                    | 281, 900  | 233, 700     | 565, 600     | 49. 83                       | 734, 700   |
| Rhode Island.....            | 401, 700                                       | 48, 750   | 49, 190      | 97, 940      | 49. 77                       | 116, 360   |
| Connecticut.....             | 793, 500                                       | 94, 540   | 93, 620      | 188, 160     | 50. 24                       | 240, 100   |
| New York.....                | 6, 390, 000                                    | 784, 300  | 785, 700     | 1, 570, 000  | 49. 95                       | 1, 885, 600  |
| New Jersey.....              | 1, 632, 000                                    | a 214, 532  | a 210, 427   | a 424, 959   | 50. 69                       | 467, 100   |
| Pennsylvania.....            | 5, 826, 000                                    | 819, 400  | 806, 600     | 1, 626, 000  | 50. 38                       | 1, 620, 000  |
| South Atlantic Division:     |  |   |              |              |                              |  |
| Delaware (1892).....         | 173, 200                                       | 24, 750   | 24, 080      | 48, 830      | 50. 69                       | 48, 900  |
| Maryland.....                | 1, 101, 000                                    | 161, 700  | 160, 600     | 322, 300     | 50. 18                       | 285, 900   |
| District of Columbia.....    | 271, 100                                       | 33, 340   | 35, 330      | 68, 670      | 48. 55                       | 75, 740  |
| Virginia.....                | 1, 690, 200                                    | 291, 030  | 286, 290     | 577, 320     | 50. 41                       | 386, 600   |
| West Virginia.....           | 828, 500                                       | 140, 850  | 137, 750     | 278, 600     | 50. 56                       | 197, 000   |
| North Carolina (1894).....   | 1, 719, 000                                    | 307, 130  | 300, 610     | 607, 740     | 50. 54                       | 364, 100   |
| South Carolina.....          | 1, 238, 060                                    | 232, 000  | 227, 700     | 459, 700     | 50. 48                       | 253, 300   |
| Georgia (1894).....          | 1, 954, 000                                    | 350, 800  | 342, 900     | 693, 700     | 50. 57                       | 423, 300   |
| Florida (1894).....          | 454, 400                                       | 75, 760   | 75, 240      | 151, 000     | 50. 17                       | 111, 700   |
| South Central Division:      |  |   |              |              |                              |  |
| Kentucky.....                | 1, 970, 000                                    | 326, 000  | 319, 200     | 645, 200     | 50. 53                       | 477, 700   |
| Tennessee (1894).....        | 1, 825, 600                                    | 317, 800  | 306, 700     | 624, 500     | 50. 89                       | 415, 500   |
| Alabama (1894).....          | 1, 703, 000                                    | 308, 200  | 299, 800     | 608, 000     | 50. 69                       | 365, 600   |
| Mississippi.....             | 1, 431, 000                                    | 265, 300  | 257, 200     | 522, 500     | 50. 78                       | 299, 300   |
| Louisiana.....               | 1, 234, 000                                    | 211, 000  | 209, 100     | 420, 100     | 50. 22                       | 276, 400   |
| Texas (1894).....            | 2, 582, 000                                    | 458, 700  | 447, 600     | 906, 300     | 50. 61                       | 619, 100   |
| Arkansas.....                | 1, 249, 000                                    | 226, 100  | 219, 500     | 445, 600     | 50. 75                       | 285, 400   |
| Oklahoma.....                | 265, 500                                       | 41, 420   | 38, 650      | 80, 070      | 51. 73                       | 82, 200  |
| North Central Division:      |  |   |              |              |                              |  |
| Ohio.....                    | 3, 788, 000                                    | 543, 500  | 531, 200     | 1, 074, 700  | 50. 57                       | 1, 048, 000  |
| Indiana.....                 | 2, 274, 000                                    | 338, 700  | 332, 600     | 671, 300     | 50. 45                       | 616, 800   |
| Illinois.....                | 4, 387, 000                                    | 624, 200  | 615, 800     | 1, 240, 000  | 50. 34                       | 1, 230, 000  |
| Michigan (1894).....         | 2, 227, 000                                    | 311, 850  | 306, 650     | 618, 500     | 50. 42                       | 656, 800   |
| Wisconsin.....               | 1, 920, 000                                    | 289, 000  | 284, 700     | 573, 700     | 50. 37                       | 525, 500   |
| Minnesota.....               | 1, 626, 000                                    | 237, 500  | 233, 000     | 470, 500     | 50. 48                       | 469, 700   |
| Iowa.....                    | 2, 064, 000                                    | 316, 200  | 306, 400     | 622, 600     | 50. 79                       | 561, 600   |
| Missouri.....                | 2, 948, 000                                    | 462, 700  | 454, 400     | 917, 100     | 50. 45                       | 776, 500   |
| North Dakota (1894).....     | 268, 700                                       | 37, 910   | 35, 450      | 73, 360      | 51. 67                       | 82, 500  |
| South Dakota (1894).....     | 401, 300                                       | 60, 130   | 57, 370      | 117, 500     | 51. 16                       | 118, 100   |
| Nebraska.....                | 1, 121, 000                                    | 172, 500  | 165, 200     | 337, 700     | 51. 08                       | 319, 300   |
| Kansas.....                  | 1, 390, 000                                    | 223, 900  | 215, 300     | 439, 200     | 50. 98                       | 373, 300   |
| Western Division:            |  |   |              |              |                              |  |
| Montana.....                 | 195, 600                                       | 17, 790   | 17, 430      | 35, 220      | 50. 52                       | 96, 530  |
| Wyoming.....                 | 95, 150  | 10, 510   | 9, 790       | 20, 300      | 51. 78                       | 42, 390  |
| Colorado.....                | 520, 100                                       | 57, 860   | 56, 540      | 114, 400     | 50. 56                       | 238, 100   |
| New Mexico.....              | 175, 600                                       | 25, 170   | 24, 120      | 49, 290      | 51. 07                       | 51, 400  |
| Arizona (1894).....          | 74, 990  | 9, 360  | 9, 430       | 19, 060      | 50. 52                       | 29, 890  |
| Utah.....                    | 264, 900                                       | 43, 490   | 42, 470      | 85, 960      | 50. 59                       | 69, 400  |
| Nevada (1894).....           | 43, 010  | 4, 773  | 4, 635       | 9, 408       | 50. 73                       | 19, 660  |
| Idaho (1894).....            | 116, 700                                       | 16, 250   | 15, 340      | 31, 590      | 51. 43                       | 43, 560  |
| Washington.....              | 474, 900                                       | 55, 180   | 52, 620      | 107, 800     | 51. 20                       | 199, 700   |
| Oregon.....                  | 400, 100                                       | 54, 500   | 53, 400      | 107, 900     | 50. 52                       | 142, 500   |
| California.....              | 1, 390, 000                                    | 166, 600  | 163, 100     | 329, 700     | 50. 54                       | 521, 800   |

a State school census.



TABLE 2.—*Relation of the school population to the total population and to the adult male population; proportion of the white school population of foreign birth or extraction; percentage of foreign born of total population.*

| State or Territory.          | Number of children 5 to 18 years of age to every 100 persons of the total population. |       |       | Number of adult males to every 100 children 5 to 18 years of age in 1890. | Percentage of white children 5 to 18 years of age that were of foreign birth or parentage in 1890. | Percentage of foreign born of total population. |       |       |
|------------------------------|---|-------|-------|---|--|---|-------|-------|
|                              | 1870.   | 1880. | 1890. |   |  | 1870.   | 1880. | 1890. |
| 1                            | 2   | 3     | 4     | 5   | 6  | 7   | 8     | 9     |
| United States.....           | 31.27   | 30.04 | 29.61 | 91.4  | 33.5   | 14.44   | 13.32 | 14.77 |
| North Atlantic Division..... | 28.30   | 26.87 | 25.39 | 114.4   | 45.8   | 20.49   | 19.40 | 22.34 |
| South Atlantic Division..... | 33.02   | 32.24 | 34.04 | 66.8  | 6.6  | 2.85  | 2.29  | 2.35  |
| South Central Division.....  | 33.92   | 33.13 | 34.76 | 65.9  | 8.6  | 3.62  | 3.08  | 2.93  |
| North Central Division.....  | 32.40   | 30.63 | 29.33 | 94.6  | 41.5   | 17.97   | 16.80 | 18.16 |
| Western Division.....        | 25.57   | 25.13 | 24.33 | 156.7   | 44.7   | 31.64   | 28.29 | 25.46 |
| North Atlantic Division:     |   |       |       |   |  |   |       |       |
| Maine.....                   | 28.01   | 25.71 | 24.60 | 123.7   | 25.0   | 7.80  | 9.07  | 11.94 |
| New Hampshire.....           | 24.75   | 22.80 | 22.29 | 140.8   | 38.4   | 9.30  | 13.34 | 19.21 |
| Vermont.....                 | 27.18   | 25.96 | 24.65 | 124.1   | 33.4   | 14.27   | 12.33 | 13.26 |
| Massachusetts.....           | 25.51   | 23.98 | 22.87 | 129.9   | 60.5   | 24.24   | 24.87 | 29.35 |
| Rhode Island.....            | 25.66   | 24.64 | 24.38 | 118.7   | 62.4   | 25.49   | 26.76 | 30.77 |
| Connecticut.....             | 25.86   | 24.97 | 23.54 | 127.6   | 54.6   | 21.14   | 20.88 | 24.60 |
| New York.....                | 28.09   | 26.32 | 24.57 | 120.1   | 54.8   | 25.97   | 23.83 | 26.19 |
| New Jersey.....              | 29.01   | 27.98 | 26.04 | 109.9   | 48.3   | 20.85   | 19.60 | 22.77 |
| Pennsylvania.....            | 30.55   | 29.43 | 27.92 | 99.6  | 32.3   | 15.48   | 13.73 | 16.08 |
| South Atlantic Division:     |   |       |       |   |  |   |       |       |
| Delaware.....                | 31.84   | 29.11 | 28.19 | 100.1   | 17.3   | 7.31  | 6.46  | 7.81  |
| Maryland.....                | 31.30   | 29.89 | 29.23 | 88.7  | 24.4   | 10.68   | 8.86  | 9.05  |
| District of Columbia.....    | 27.01   | 26.87 | 25.38 | 110.3   | 26.3   | 12.34   | 9.64  | 8.15  |
| Virginia.....                | 32.39   | 32.43 | 34.16 | 67.0  | 2.8  | 1.12  | .97   | 1.11  |
| West Virginia.....           | 34.13   | 33.37 | 33.62 | 70.7  | 5.9  | 3.87  | 2.95  | 2.48  |
| North Carolina.....          | 33.60   | 32.30 | 35.35 | 59.9  | .7   | .28   | .27   | .23   |
| South Carolina.....          | 33.15   | 33.21 | 37.14 | 55.1  | 2.3  | 1.14  | .77   | .54   |
| Georgia.....                 | 34.42   | 33.17 | 35.50 | 61.0  | 2.1  | .94   | .69   | .66   |
| Florida.....                 | 34.03   | 32.82 | 33.23 | 74.0  | 11.5   | 2.65  | 3.68  | 5.86  |
| South Central Division:      |   |       |       |   |  |   |       |       |
| Kentucky.....                | 34.41   | 33.14 | 32.76 | 74.0  | 8.7  | 4.80  | 3.61  | 3.19  |
| Tennessee.....               | 34.13   | 33.44 | 34.22 | 66.5  | 2.9  | 1.53  | 1.08  | 1.13  |
| Alabama.....                 | 34.40   | 33.37 | 35.70 | 60.1  | 3.2  | 1.00  | .77   | .98   |
| Mississippi.....             | 33.70   | 34.12 | 36.69 | 57.3  | 3.1  | 1.35  | .81   | .62   |
| Louisiana.....               | 31.11   | 31.93 | 34.04 | 65.8  | 17.8   | 8.53  | 5.76  | 4.45  |
| Texas.....                   | 34.80   | 32.60 | 35.10 | 68.3  | 16.9   | 7.62  | 7.20  | 6.84  |
| Arkansas.....                | 34.16   | 33.15 | 35.68 | 64.0  | 3.5  | 1.04  | 1.29  | 1.26  |
| Oklahoma.....                |   |       | 30.18 | 102.7   | 9.6  |   |       | 4.43  |
| North Central Division:      |   |       |       |   |  |   |       |       |
| Ohio.....                    | 31.74   | 29.75 | 28.37 | 97.6  | 30.4   | 13.98   | 12.35 | 12.51 |
| Indiana.....                 | 33.75   | 31.37 | 29.54 | 91.9  | 17.8   | 8.42  | 7.29  | 6.67  |
| Illinois.....                | 32.24   | 30.66 | 28.26 | 99.2  | 47.0   | 20.28   | 18.96 | 22.01 |
| Michigan.....                | 30.28   | 28.37 | 27.77 | 106.2   | 56.1   | 22.63   | 23.73 | 25.97 |
| Wisconsin.....               | 33.57   | 30.85 | 29.88 | 91.6  | 72.4   | 34.56   | 30.82 | 30.78 |
| Minnesota.....               | 32.45   | 30.43 | 28.93 | 99.8  | 76.4   | 36.55   | 34.28 | 35.90 |
| Iowa.....                    | 33.06   | 31.40 | 30.17 | 90.2  | 42.6   | 17.14   | 16.11 | 16.95 |
| Missouri.....                | 33.57   | 32.35 | 31.11 | 84.7  | 22.5   | 12.91   | 9.76  | 8.77  |
| North Dakota.....            | 23.74   | 24.34 | 27.30 | 112.2   | 80.3   | 33.95   | 38.32 | 44.58 |
| South Dakota.....            | 29.29   | 29.29 | 100.5 | 61.2  | 61.2   | 33.95   | 38.32 | 27.69 |
| Nebraska.....                | 28.07   | 29.88 | 30.12 | 94.5  | 42.1   | 25.00   | 21.53 | 19.13 |
| Kansas.....                  | 29.83   | 31.73 | 31.59 | 85.0  | 26.4   | 13.28   | 11.05 | 10.36 |
| Western Division:            |   |       |       |   |  |   |       |       |
| Montana.....                 | 10.20   | 17.10 | 18.06 | 274.0   | 49.4   | 38.74   | 29.42 | 32.61 |
| Wyoming.....                 | 9.39  | 18.06 | 21.33 | 208.8   | 47.2   | 38.53   | 28.14 | 24.57 |
| Colorado.....                | 22.47   | 18.72 | 22.00 | 181.8   | 36.3   | 16.55   | 20.48 | 20.38 |
| New Mexico.....              | 31.90   | 29.85 | 28.07 | 104.3   | 13.2   | 6.12  | 6.73  | 7.33  |
| Arizona.....                 | 16.78   | 19.59 | 25.42 | 156.4   | 57.1   | 60.15   | 39.69 | 31.52 |
| Utah.....                    | 35.05   | 33.39 | 32.45 | 80.7  | 66.6   | 35.38   | 30.56 | 25.52 |
| Nevada.....                  | 12.56   | 18.22 | 21.87 | 209.3   | 60.8   | 44.25   | 41.20 | 32.14 |
| Idaho.....                   | 11.30   | 22.98 | 27.07 | 137.9   | 41.1   | 52.57   | 30.59 | 20.69 |
| Washington.....              | 26.96   | 27.19 | 22.69 | 185.3   | 39.3   | 20.97   | 21.04 | 25.76 |
| Oregon.....                  | 32.34   | 28.63 | 26.96 | 132.1   | 27.9   | 12.76   | 17.45 | 18.27 |
| California.....              | 24.48   | 25.03 | 23.72 | 161.3   | 51.8   | 37.45   | 33.87 | 30.32 |

TABLE 3.—*School ages of the several States—State school censuses.*

| State or Territory.             | Age for<br>free<br>school<br>attend-<br>ance. | Age for<br>compul-<br>sory<br>attend-<br>ance. | School census.                         |  |                                |         |             |
|---------------------------------|---|--|--|--|--------------------------------|---------|-------------|
|                                 |   |  | Date of<br>latest<br>school<br>census. | Age of<br>children<br>enumer-<br>ated. | Number of children enumerated. |         |             |
|                                 |   |  |  |  | Male.                          | Female. | Total.      |
| 1                               | 2   | 3  | 4                                      | 5                                      | 6                              | 7       | 8           |
| <b>North Atlantic Division:</b> |   |  |  |  |                                |         |             |
| Maine.....                      | 5-21  | 8-15   | 1895                                   | 4-21                                   |                                |         | 208,042     |
| New Hampshire.....              | Over 5  | 6-16   | (a)                                    |  |                                |         |             |
| Vermont.....                    | 5-21  | 8-15   | 1895                                   | 5-21                                   | 42,208                         | 41,404  | 83,712      |
| Massachusetts.....              | No limit.                                     | 8-14   | 1894                                   | 5-15                                   |                                |         | 408,898     |
| Rhode Island.....               | Over 5  | 7-15   | 1895                                   | c 5-15                                 | 36,908                         | 36,267  | 73,175      |
| Connecticut.....                | 4-16  | 8-16   | 1894                                   | 4-16                                   |                                |         | 170,589     |
| New York.....                   | 5-21  | 8-16   | 1895                                   | 4-21                                   |                                |         | d 1,115,052 |
| New Jersey.....                 | 5-20  | 7-12   | 1895                                   | 5-18                                   | 214,532                        | 210,427 | 424,959     |
| Pennsylvania.....               | 6-21  | 8-13   | (e)                                    | 8-13                                   |                                |         |             |
| <b>South Atlantic Division:</b> |   |  |  |  |                                |         |             |
| Delaware.....                   | 6-21  | (f)  | 1893                                   | 6-21                                   | 15,827                         | 17,758  | 33,585      |
| Maryland.....                   | 5-20  | (f)  | (g)                                    |  |                                |         |             |
| District of Columbia...         | Over 6  | h 6-15   | i 1894                                 | 6-18                                   |                                |         | 55,014      |
| Virginia.....                   | 5-21  | (f)  | 1895                                   | 5-21                                   | 339,475                        | 326,058 | 665,533     |
| West Virginia.....              | 6-21  | (f)  | 1895                                   | 6-21                                   | 151,504                        | 137,770 | 289,274     |
| North Carolina.....             | 6-21  | (f)  | 1895                                   | 6-21                                   |                                |         | 562,573     |
| South Carolina.....             | 6-21  | (f)  | (g)                                    |  |                                |         |             |
| Georgia.....                    |   | (f)  | 1893                                   | 6-18                                   |                                |         | 604,971     |
| Florida.....                    | 6-21  | (f)  | 1892                                   | 6-21                                   | 74,686                         | 69,420  | 144,106     |
| <b>South Central Division:</b>  |   |  |  |  |                                |         |             |
| Kentucky.....                   | 6-20  | (f)  | 1895                                   | 6-20                                   | 369,916                        | 357,632 | 727,548     |
| Tennessee.....                  |   | (f)  | 1894                                   | 6-21                                   |                                |         | 708,471     |
| Alabama.....                    | 7-21  | (f)  | 1893                                   | 7-21                                   |                                |         | 579,697     |
| Mississippi.....                | 5-21  | (f)  | 1894                                   | 5-21                                   | 281,555                        | 259,976 | 541,531     |
| Louisiana.....                  | 6-18  | (f)  | 1895                                   | 6-18                                   |                                |         | 400,502     |
| Texas.....                      | 8-17  | (f)  | 1894                                   | 8-17                                   | 353,071                        | 340,681 | 693,752     |
| Arkansas.....                   | 6-21  | (f)  | 1895                                   | 6-21                                   | 230,823                        | 218,118 | 448,941     |
| Oklahoma.....                   | 6-21  | (f)  | 1895                                   | 6-21                                   | 44,343                         | 41,293  | 85,636      |
| <b>North Central Division:</b>  |   |  |  |  |                                |         |             |
| Ohio.....                       | 6-21  | 8-14   | 1895                                   | 6-21                                   | 596,352                        | 562,906 | 1,159,258   |
| Indiana.....                    | 6-21  | (f)  | 1895                                   | 6-21                                   | 410,281                        | 388,636 | 798,917     |
| Illinois.....                   | 6-21  | 7-14   | 1895                                   | 6-21                                   | 678,667                        | 655,334 | 1,334,001   |
| Michigan.....                   | 5-20  | j 8-14   | 1894                                   | 5-20                                   |                                |         | 696,234     |
| Wisconsin.....                  | 4-20  | 7-14   | 1895                                   | 4-20                                   | 342,083                        | 332,529 | 674,612     |
| Minnesota.....                  | 5-21  | 8-16   | (g)                                    |  |                                |         |             |
| Iowa.....                       | 5-21  | (f)  | 1895                                   | 5-21                                   | 362,364                        | 350,577 | 712,941     |
| Missouri.....                   | 6-20  | (f)  | 1895                                   | 6-20                                   | 479,208                        | 465,727 | 944,935     |
| North Dakota.....               | 6-20  |  | 1893                                   | 6-20                                   |                                |         | 57,631      |
| South Dakota.....               | 6-20  |  | 1894                                   | 6-20                                   |                                |         | 105,175     |
| Nebraska.....                   | 5-21  | c 8-14   | 1895                                   | 5-21                                   | 180,335                        | 171,511 | 351,846     |
| Kansas.....                     | 5-  | 8-14   | 1895                                   | 5-21                                   | 252,956                        | 243,472 | 496,428     |
| <b>Western Division:</b>        |   |  |  |  |                                |         |             |
| Montana.....                    | 6-21  | 8-14   | 1895                                   | 6-21                                   | 19,841                         | 19,411  | 39,252      |
| Wyoming.....                    | 6-21  | (g)  | (g)                                    |  |                                |         |             |
| Colorado.....                   | 6-21  | 8-14   | 1895                                   | 6-21                                   | 60,416                         | 59,617  | 120,033     |
| New Mexico.....                 | 6-21  | 8-16   | 1894                                   | 6-21                                   |                                |         | 48,733      |
| Arizona.....                    | 6-18  |  | 1894                                   | 6-18                                   | 8,120                          | 8,083   | 16,203      |
| Utah.....                       | 6-18  | 8-14   | 1895                                   | 6-18                                   | 38,978                         | 38,691  | 77,669      |
| Nevada.....                     | 6-18  | 8-14   | 1894                                   | 0-21                                   |                                |         | 13,301      |
| Idaho.....                      | 5-21  | 8-14   | 1894                                   | 5-21                                   |                                |         | 35,606      |
| Washington.....                 | 5-21  | 8-15   | 1895                                   | 5-21                                   | 60,664                         | 58,693  | 119,357     |
| Oregon.....                     | 4-20  | 8-14   | 1895                                   | 4-20                                   |                                |         | 125,945     |
| California.....                 | 6-21  | 8-14   | 1895                                   | 5-17                                   | 163,074                        | 160,056 | 323,130     |

a School census imperfect under the present system.

b 8 to 15 where manual training is taught.

c Inclusive.

d In villages and cities of 10,000 inhabitants and over.

e First school census will be taken in 1896.

f No compulsory law.

g No school census.

h Law not in force.

i Police census.

j In cities, 7-16.

## XXXVIII REPORT OF THE COMMISSIONER OF EDUCATION.

TABLE 4.—*Number of pupils enrolled in the common schools at various periods, and the relation of the enrollment to the school population.*

| State or Territory.          | Number of different pupils enrolled during the school year, excluding duplicates. |           |            |            | Per cent of school population (5 to 18 years of age) enrolled. |          |          |          |
|------------------------------|---|-----------|------------|------------|--|----------|----------|----------|
|                              | 1870-71.  | 1879-83.  | 1889-90.   | 1894-95.   | 1870-71.   | 1879-80. | 1889-90. | 1894-95. |
| 1                            | 2   | 3         | 4          | 5          | 6  | 7        | 8        | 9        |
| United States.....           | 7,561,582   | 9,867,505 | 12,722,581 | 14,201,752 | 61.45  | 65.50    | 68.61    | 69.85    |
| North Atlantic Division..... | 2,743,344   | 2,930,345 | 3,112,622  | 3,411,862  | 77.95  | 75.17    | 70.45    | 71.07    |
| South Atlantic Division..... | 603,619   | 1,242,811 | 1,785,486  | 1,980,537  | 30.51  | 50.74    | 59.22    | 61.73    |
| South Central Division.....  | 767,829   | 1,371,975 | 2,293,579  | 2,719,256  | 34.17  | 46.43    | 60.14    | 63.96    |
| North Central Division.....  | 3,300,660   | 4,033,823 | 5,015,217  | 5,468,928  | 76.87  | 75.84    | 76.45    | 75.58    |
| Western Division.....        | 146,120   | 288,546   | 515,677    | 681,169    | 54.77  | 64.96    | 70.01    | 74.80    |
| North Atlantic Division:     |   |           |            |            |  |          |          |          |
| Maine.....                   | 152,600   | 149,827   | 130,676    | 135,598    | 87.35  | 89.86    | 85.88    | 84.78    |
| New Hampshire.....           | 71,957  | 64,341    | 59,813     | a 62,437   | 91.31  | 81.32    | 71.28    | a 72.03  |
| Vermont.....                 | 65,384  | 75,238    | 65,608     | 64,918     | .....  | 87.21    | .....    | 79.18    |
| Massachusetts.....           | 273,661   | 306,777   | 371,492    | 412,953    | 72.34  | 71.76    | 72.56    | 73.03    |
| Rhode Island.....            | 34,000  | 40,604    | 52,774     | 57,971     | 59.24  | 59.59    | 62.65    | 59.19    |
| Connecticut.....             | 113,588   | 119,694   | 126,505    | 138,882    | 80.83  | 76.97    | 72.02    | 73.80    |
| New York.....                | 1,028,110   | 1,031,593 | 1,042,160  | 1,158,343  | 82.98  | 77.10    | 70.71    | 73.77    |
| New Jersey.....              | 169,439   | 204,961   | 234,072    | 274,270    | 63.20  | 64.77    | 62.21    | 64.55    |
| Pennsylvania.....            | 834,614   | 937,310   | 1,020,522  | 1,106,490  | 76.35  | 74.37    | 69.53    | 68.03    |
| South Atlantic Division:     |   |           |            |            |  |          |          |          |
| Delaware.....                | 20,058  | 27,823    | 31,434     | b 33,174   | 50.04  | 65.20    | 66.19    | b 67.93  |
| Maryland.....                | 115,683   | 162,431   | 184,251    | 204,744    | 46.70  | 58.13    | 60.37    | 63.53    |
| District of Columbia.....    | 15,157  | 26,439    | 36,906     | 41,557     | 41.60  | 55.40    | 63.10    | 60.50    |
| Virginia.....                | 131,088   | 220,736   | 342,269    | 355,986    | 32.34  | 45.00    | 60.51    | 61.66    |
| West Virginia.....           | 76,999  | 142,850   | 193,064    | 217,708    | 49.47  | 69.21    | 75.27    | 78.14    |
| North Carolina.....          | 115,000   | 252,612   | 322,533    | a 370,890  | 31.23  | 55.87    | 56.39    | a 61.04  |
| South Carolina.....          | 66,656  | 134,072   | 201,260    | 223,021    | 27.28  | 40.56    | 47.08    | 48.51    |
| Georgia.....                 | 49,578  | 236,533   | 381,297    | a 436,682  | 11.89  | 46.24    | 58.45    | a 62.97  |
| Florida.....                 | 14,000  | 39,315    | 92,472     | a 96,775   | 21.21  | 44.16    | 71.10    | a 64.10  |
| South Central Division:      |   |           |            |            |  |          |          |          |
| Kentucky.....                | 178,457   | 276,000   | 399,660    | 467,971    | .....  | .....    | 65.64    | 72.53    |
| Tennessee.....               | 140,000   | 300,217   | 447,950    | a 483,156  | 32.00  | 58.21    | 74.05    | a 77.36  |
| Alabama.....                 | 141,312   | 179,490   | 301,615    | a 306,014  | 40.36  | 42.60    | 55.83    | a 50.32  |
| Mississippi.....             | 117,000   | 236,654   | 334,158    | 350,615    | 40.60  | 61.29    | 70.62    | 67.10    |
| Louisiana.....               | 57,639  | 77,442    | 120,253    | 153,926    | 24.78  | 23.87    | 31.58    | 37.11    |
| Texas.....                   | 63,504  | 220,000   | 466,872    | a 508,608  | 21.00  | 42.40    | 59.50    | a 66.04  |
| Arkansas.....                | 69,927  | 81,972    | 223,071    | 299,292    | 40.29  | 30.81    | 55.41    | 67.16    |
| Oklahoma.....                | .....   | .....     | .....      | 57,674     | .....  | .....    | .....    | 72.03    |
| North Central Division:      |   |           |            |            |  |          |          |          |
| Ohio.....                    | 719,372   | 729,499   | 797,439    | 817,490    | 84.04  | 76.69    | 76.54    | 76.07    |
| Indiana.....                 | 450,057   | 511,233   | 512,955    | 529,345    | 78.64  | 82.39    | 79.21    | 78.87    |
| Illinois.....                | 672,787   | 704,041   | 778,319    | 878,538    | 81.01  | 74.61    | 71.97    | 70.87    |
| Michigan.....                | 292,466   | 362,556   | 427,032    | a 468,979  | 79.66  | 78.08    | 73.45    | a 75.84  |
| Wisconsin.....               | 265,285   | 299,457   | 351,723    | 397,471    | 73.92  | 73.78    | 69.77    | 69.28    |
| Minnesota.....               | 113,983   | 180,248   | 280,960    | 350,104    | 75.92  | 75.87    | 74.59    | 74.42    |
| Iowa.....                    | 341,938   | 426,057   | 493,267    | 533,824    | 84.44  | 83.52    | 85.51    | 85.74    |
| Missouri.....                | 330,070   | 482,986   | 620,314    | 644,877    | 56.03  | 68.85    | 74.43    | 70.29    |
| North Dakota.....            | } 1,660   | 13,718    | { 35,543   | a 47,861   | { 39.26  | 41.68    | { 71.26  | a 64.55  |
| South Dakota.....            |   |           |            | a 78,043   |  |          |          |          |
| Nebraska.....                | 23,265  | 92,549    | 240,300    | 272,290    | 58.79  | 68.48    | 75.35    | 83.63    |
| Kansas.....                  | 89,777  | 231,434   | 399,322    | 381,123    | 74.22  | 73.23    | 88.56    | 83.74    |
| Western Division:            |   |           |            |            |  |          |          |          |
| Montana.....                 | 1,657   | 4,270     | 16,980     | 26,840     | 70.24  | 63.77    | 71.14    | 76.29    |
| Wyoming.....                 | 459   | 2,907     | 7,052      | 11,053     | 45.34  | 77.44    | 54.46    | 51.45    |
| Colorado.....                | 4,357   | 22,119    | 65,490     | 90,532     | 42.28  | 60.82    | 72.20    | 79.10    |
| New Mexico.....              | 1,320   | 4,755     | 18,215     | 24,220     | 4.42   | 13.32    | 42.25    | 49.13    |
| Arizona.....                 | 0   | 4,212     | 7,980      | a 11,320   | .....  | 53.16    | 52.72    | a 53.59  |
| Utah.....                    | 16,992  | 24,326    | 37,279     | 62,160     | 53.36  | 50.61    | 55.26    | 72.33    |
| Nevada.....                  | 3,106   | 9,045     | 7,387      | a 6,827    | 58.97  | 79.73    | 73.80    | a 72.57  |
| Idaho.....                   | 906   | 5,834     | 14,311     | a 24,266   | 46.06  | 77.85    | 62.66    | a 78.80  |
| Washington.....              | 5,000   | 14,780    | 53,964     | 90,217     | 69.00  | 72.36    | 70.58    | 83.72    |
| Oregon.....                  | 21,000  | 37,533    | 63,254     | 83,024     | 67.73  | 75.02    | 74.78    | 76.97    |
| California.....              | 91,332  | 158,765   | 221,756    | 250,701    | 63.63  | 73.37    | 77.38    | 76.05    |

a In 1893-94.

b In 1891-92.



TABLE 5.—*The school enrollment of 1894-95, classified by sex; per cent of the male and of the female school population enrolled; also of the total population.*

| State or Territory.            | Whole number of different pupils enrolled. |         |            | Per cent of school population (5 to 18 years of age) enrolled. |         |                  | Per cent of the total population enrolled. |
|--------------------------------|--|---------|------------|--|---------|------------------|--|
|                                | Male.                                      | Female. | Total.     | Male.  | Female. | Male and female. |  |
| 1                              | 2  | 3       | 4          | 5  | 6       | 7                | 8  |
| United States .....            |  |         | 14,201,752 |  |         | 60.85            | 20.65                                      |
| North Atlantic Division .....  |  |         | 3,411,867  |  |         | 71.07            | 18.06                                      |
| South Atlantic Division .....  |  |         | 1,980,537  |  |         | 61.73            | 21.00                                      |
| South Central Division .....   |  |         | 2,719,256  |  |         | 63.96            | 22.18                                      |
| North Central Division .....   |  |         | 5,408,928  |  |         | 75.58            | 22.15                                      |
| Western Division .....         |  |         | 681,169    |  |         | 74.80            | 18.16                                      |
| North Atlantic Division:       |  |         |            |  |         |                  |  |
| Maine .....                    |  |         | 135,538    |  |         | 84.78            | 20.86                                      |
| New Hampshire (1893-94) .....  | 32,003                                     | 30,424  | 62,427     | 73.72  | 70.29   | 72.03            | 16.05                                      |
| Vermont .....                  | 33,706                                     | 31,212  | 64,918     | 79.76  | 78.62   | 79.18            | 19.52                                      |
| Massachusetts .....            |  |         | 412,953    |  |         | 73.08            | 16.70                                      |
| Rhode Island .....             | 29,177                                     | 28,794  | 57,971     | 59.86  | 58.53   | 59.19            | 14.44                                      |
| Connecticut .....              |  |         | 138,882    |  |         | 73.80            | 17.37                                      |
| New York .....                 |  |         | 1,158,343  |  |         | 73.77            | 18.13                                      |
| New Jersey .....               | 188,764                                    | 135,506 | 324,270    | 64.69  | 64.39   | 64.55            | 16.81                                      |
| Pennsylvania .....             |  |         | 1,106,490  |  |         | 68.08            | 18.99                                      |
| South Atlantic Division:       |  |         |            |  |         |                  |  |
| Delaware (1891-92) .....       |  |         | 33,174     |  |         | 67.93            | 10.16                                      |
| Maryland .....                 |  |         | 204,744    |  |         | 63.53            | 18.69                                      |
| District of Columbia .....     | 19,465                                     | 22,092  | 41,557     | 58.49  | 62.51   | 60.50            | 15.36                                      |
| Virginia .....                 | 181,832                                    | 174,154 | 355,986    | 62.49  | 60.83   | 61.66            | 21.65                                      |
| West Virginia .....            | 114,747                                    | 102,961 | 217,708    | 81.45  | 74.75   | 78.14            | 23.28                                      |
| North Carolina (1893-94) ..... | 188,333                                    | 182,557 | 370,890    | 61.33  | 60.73   | 61.04            | 21.58                                      |
| South Carolina .....           | 110,415                                    | 112,606 | 223,021    | 47.59  | 49.46   | 48.51            | 18.02                                      |
| Georgia (1893-94) .....        | 218,046                                    | 218,636 | 436,682    | 62.17  | 63.76   | 62.97            | 22.25                                      |
| Florida (1893-94) .....        | 48,251                                     | 48,524  | 96,775     | 63.70  | 64.49   | 64.10            | 21.30                                      |
| South Central Division:        |  |         |            |  |         |                  |  |
| Kentucky .....                 | 240,808                                    | 227,163 | 467,971    | 73.86  | 71.15   | 72.53            | 23.76                                      |
| Tennessee (1893-94) .....      | 249,415                                    | 233,741 | 483,156    | 73.48  | 76.20   | 74.86            | 26.48                                      |
| Alabama (1893-94) .....        |  |         | 306,014    |  |         | 50.32            | 17.97                                      |
| Mississippi .....              | 175,672                                    | 174,943 | 350,615    | 66.20  | 68.03   | 67.10            | 24.62                                      |
| Louisiana .....                | 78,522                                     | 77,404  | 155,926    | 37.22  | 37.02   | 37.11            | 12.64                                      |
| Texas (1893-94) .....          | 301,856                                    | 296,752 | 598,608    | 65.81  | 66.30   | 66.04            | 23.18                                      |
| Arkansas .....                 | 153,881                                    | 145,411 | 299,292    | 68.05  | 66.25   | 67.16            | 23.97                                      |
| Oklahoma .....                 | 29,771                                     | 27,903  | 57,674     | 71.88  | 72.20   | 72.03            | 21.74                                      |
| North Central Division:        |  |         |            |  |         |                  |  |
| Ohio .....                     | 421,418                                    | 396,072 | 817,490    | 77.34  | 74.56   | 76.07            | 21.58                                      |
| Indiana .....                  | 268,460                                    | 260,855 | 529,315    | 79.27  | 78.43   | 78.87            | 23.30                                      |
| Illinois .....                 | 446,045                                    | 432,493 | 878,538    | 71.45  | 70.23   | 70.87            | 20.03                                      |
| Michigan (1893-94) .....       | 236,389                                    | 232,590 | 468,979    | 75.80  | 75.87   | 75.84            | 21.06                                      |
| Wisconsin .....                | 202,849                                    | 194,622 | 397,471    | 70.20  | 68.37   | 69.28            | 20.70                                      |
| Minnesota .....                |  |         | 350,104    |  |         | 74.42            | 21.53                                      |
| Iowa .....                     |  |         | 533,824    |  |         | 85.74            | 25.87                                      |
| Missouri .....                 | 326,871                                    | 317,706 | 644,577    | 70.63  | 69.90   | 70.29            | 21.87                                      |
| North Dakota (1893-94) .....   | 25,065                                     | 22,296  | 47,361     | 66.13  | 62.89   | 64.55            | 17.62                                      |
| South Dakota (1893-94) .....   | 46,349                                     | 41,477  | 87,826     | 77.07  | 72.30   | 74.72            | 21.88                                      |
| Nebraska .....                 | 140,540                                    | 131,750 | 272,290    | 81.47  | 79.74   | 80.63            | 24.28                                      |
| Kansas .....                   | 194,464                                    | 186,659 | 381,123    | 86.84  | 86.70   | 86.74            | 27.40                                      |
| Western Division:              |  |         |            |  |         |                  |  |
| Montana .....                  |  |         | 26,840     |  |         | 76.29            | 13.76                                      |
| Wyoming .....                  | 5,638                                      | 5,415   | 11,053     | 53.64  | 55.31   | 54.46            | 11.62                                      |
| Colorado .....                 | 45,743                                     | 44,789  | 90,532     | 79.05  | 79.20   | 79.10            | 17.41                                      |
| New Mexico .....               |  |         | 24,220     |  |         | 49.13            | 13.79                                      |
| Arizona (1893-94) .....        |  |         | 11,920     |  |         | 58.50            | 15.09                                      |
| Utah .....                     | 31,169                                     | 31,000  | 62,169     | 71.68  | 73.00   | 72.33            | 23.47                                      |
| Nevada (1893-94) .....         | 3,493                                      | 3,324   | 6,817      | 73.18  | 71.93   | 72.57            | 15.87                                      |
| Idaho (1893-94) .....          | 12,568                                     | 11,698  | 24,266     | 77.34  | 76.26   | 76.80            | 20.79                                      |
| Washington .....               | 45,916                                     | 44,501  | 90,417     | 83.24  | 84.18   | 83.72            | 19.00                                      |
| Oregon .....                   |  |         | 88,024     |  |         | 76.97            | 20.75                                      |
| California .....               | 126,877                                    | 123,824 | 250,701    | 76.13  | 75.92   | 76.05            | 18.04                                      |



TABLE 6.—*Per cent of the school population (i. e., children 5 to 18 years of age) enrolled in the public schools, for a period of years.*

| Year.        | United States. | North Atlantic Division. | South Atlantic Division. | South Central Division. | North Central Division. | Western Division. |
|--------------|----------------|--------------------------|--------------------------|-------------------------|-------------------------|-------------------|
| 1870-71..... | 61.45          | 77.95                    | 30.51                    | 34.17                   | 76.87                   | 54.77             |
| 1871-72..... | 62.29          | 77.33                    | 32.27                    | 37.94                   | 77.04                   | 54.43             |
| 1872-73..... | 62.26          | 76.79                    | 35.86                    | 38.67                   | 75.97                   | 57.52             |
| 1873-74..... | 64.40          | 77.77                    | 42.10                    | 40.82                   | 76.98                   | 61.04             |
| 1874-75..... | 65.54          | 78.59                    | 44.61                    | 42.47                   | 77.54                   | 64.39             |
| 1875-76..... | 64.70          | 78.55                    | 46.72                    | 37.36                   | 77.05                   | 66.37             |
| 1876-77..... | 63.92          | 76.83                    | 47.02                    | 38.51                   | 75.60                   | 66.12             |
| 1877-78..... | 65.75          | 77.09                    | 48.85                    | 43.50                   | 77.38                   | 66.26             |
| 1878-79..... | 64.64          | 76.18                    | 46.72                    | 44.71                   | 75.28                   | 65.63             |
| 1879-80..... | 65.50          | 75.17                    | 50.74                    | 46.43                   | 75.84                   | 64.96             |
| 1880-81..... | 65.03          | 74.28                    | 51.49                    | 47.03                   | 74.59                   | 64.82             |
| 1881-82..... | 65.03          | 74.56                    | 51.90                    | 47.02                   | 74.15                   | 65.93             |
| 1882-83..... | 66.39          | 74.15                    | 54.30                    | 50.68                   | 75.13                   | 67.05             |
| 1883-84..... | 66.96          | 72.83                    | 56.25                    | 53.59                   | 75.06                   | 68.01             |
| 1884-85..... | 67.96          | 73.23                    | 57.17                    | 56.57                   | 75.46                   | 68.53             |
| 1885-86..... | 68.14          | 72.63                    | 57.68                    | 56.82                   | 76.08                   | 68.63             |
| 1886-87..... | 67.98          | 72.23                    | 58.98                    | 56.21                   | 75.77                   | 67.97             |
| 1887-88..... | 68.33          | 71.60                    | 58.68                    | 58.67                   | 75.96                   | 68.53             |
| 1888-89..... | 68.20          | 70.60                    | 58.40                    | 58.28                   | 76.63                   | 69.39             |
| 1889-90..... | 68.61          | 70.45                    | 59.22                    | 60.14                   | 76.46                   | 70.01             |
| 1890-91..... | 69.03          | 69.85                    | 59.80                    | 62.51                   | 76.00                   | 73.28             |
| 1891-92..... | 69.06          | 69.98                    | 58.88                    | 63.14                   | 75.85                   | 75.32             |
| 1892-93..... | 68.72          | 68.64                    | 60.93                    | 62.39                   | 75.52                   | 73.51             |
| 1893-94..... | 69.39          | 69.63                    | 61.74                    | 63.37                   | 75.73                   | 73.83             |
| 1894-95..... | 69.85          | 71.07                    | 61.73                    | 63.96                   | 75.58                   | 74.86             |

TABLE 7.—*The average daily attendance at various periods, and its present relation to the enrollment.*

| State or Territory.          | Average number of pupils attending school each day. |             |             |             | Number in daily attendance for each 100 enrolled. |
|------------------------------|---|-------------|-------------|-------------|---|
|                              | 1870-71.  | 1879-80.    | 1889-90.    | 1894-95.    |   |
| 1                            | 2   | 3           | 4           | 5           | 6   |
| United States .....          | 4, 545, 317   | 6, 144, 143 | 8, 153, 635 | 9, 387, 507 | 66. 11  |
| North Atlantic Division..... | 1, 627, 268   | 1, 824, 487 | 2, 036, 459 | 2, 341, 204 | 68. 61  |
| South Atlantic Division..... | 368, 111  | 776, 798    | 1, 126, 683 | 1, 236, 847 | 62. 44  |
| South Central Division.....  | 535, 632  | 902, 767    | 1, 467, 649 | 1, 736, 454 | 63. 84  |
| North Central Division.....  | 1, 911, 720   | 2, 451, 167 | 3, 188, 732 | 3, 604, 851 | 66. 65  |
| Western Division.....        | 102, 646  | 188, 924    | 334, 112    | 468, 151    | 68. 73  |
| North Atlantic Division:     |   |             |             |             |   |
| Maine.....                   | 100, 392  | 103, 115    | 98, 364     | 95, 841     | 70. 68  |
| New Hampshire.....           | 48, 150   | 48, 966     | 41, 526     | a 42, 030   | a 67. 30  |
| Vermont.....                 | 44, 100   | 48, 606     | 45, 887     | 42, 740     | 65. 84  |
| Massachusetts.....           | 201, 750  | 233, 127    | 273, 910    | 313, 693    | 75. 95  |
| Rhode Island.....            | 22, 485   | 27, 217     | 33, 905     | 41, 065     | 70. 83  |
| Connecticut.....             | 62, 683   | 73, 546     | 83, 656     | 96, 213     | 69. 30  |
| New York.....                | 493, 648  | 573, 089    | 642, 984    | 757, 694    | 65. 42  |
| New Jersey.....              | 86, 812   | 115, 194    | 133, 286    | 172, 465    | 62. 86  |
| Pennsylvania.....            | 567, 188  | 601, 627    | 682, 941    | 779, 463    | 70. 45  |
| South Atlantic Division:     |   |             |             |             |   |
| Delaware.....                | 12, 700   | 17, 439     | 19, 649     | b c 22, 693 | b c 68. 40  |
| Maryland.....                | 56, 435   | 85, 778     | 102, 351    | 121, 562    | 59. 37  |
| District of Columbia.....    | 10, 261   | 20, 637     | 28, 184     | 33, 844     | 81. 45  |
| Virginia.....                | 77, 402   | 128, 404    | 198, 290    | 202, 530    | 56. 90  |
| West Virginia.....           | 51, 336   | 91, 604     | 121, 700    | 140, 485    | 64. 53  |
| North Carolina.....          | 73, 000   | 170, 100    | 203, 100    | a 230, 301  | a 62. 03  |
| South Carolina.....          | 44, 700   | 90, 600     | 147, 769    | 159, 254    | 71. 42  |
| Georgia.....                 | 31, 377   | 145, 190    | 240, 791    | a 202, 040  | a 69. 00  |
| Florida.....                 | 10, 900   | 27, 046     | 64, 819     | a 64, 138   | a 66. 27  |
| South Central Division:      |   |             |             |             |   |
| Kentucky.....                | 120, 866  | 178, 000    | 225, 739    | 272, 366    | 58. 21  |
| Tennessee.....               | 89, 000   | 208, 528    | 323, 548    | a 343, 664  | a 71. 15  |
| Alabama.....                 | 107, 666  | 117, 978    | 182, 467    | a 185, 100  | a 60. 49  |
| Mississippi.....             | 90, 000   | 156, 761    | 207, 704    | 202, 683    | 57. 81  |
| Louisiana.....               | 40, 503   | 54, 800     | 87, 536     | 109, 455    | 70. 18  |
| Texas.....                   | 41, 000   | 132, 000    | 291, 941    | a 418, 069  | a 69. 85  |
| Arkansas.....                | 49, 600   | 54, 700     | 148, 714    | 174, 940    | 58. 45  |
| Oklahoma.....                |   |             |             | 30, 197     | 52. 56  |
| North Central Division:      |   |             |             |             |   |
| Ohio.....                    | 432, 452  | 476, 279    | 549, 269    | 593, 465    | 72. 60  |
| Indiana.....                 | 295, 071  | 321, 659    | 342, 275    | 392, 015    | 74. 05  |
| Illinois.....                | 341, 686  | 431, 638    | 538, 310    | 624, 900    | 71. 12  |
| Michigan.....                | 193, 000  | 240, 000    | 282, 000    | a 286, 077  | a 61. 09  |
| Wisconsin.....               | 132, 000  | 156, 000    | 200, 457    | c 261, 000  | c 65. 63  |
| Minnesota.....               | 50, 694   | 78, 400     | 127, 025    | 164, 747    | 47. 05  |
| Iowa.....                    | 211, 562  | 259, 856    | 306, 300    | 339, 300    | 63. 56  |
| Missouri.....                | 187, 024  | 281, 000    | 384, 627    | 426, 610    | 66. 17  |
| North Dakota.....            | } 1, 040  | 8, 530      | 29, 694     | a 32, 305   | a 68. 22  |
| South Dakota.....            |   | 60, 156     | 48, 327     | a c 54, 400 | a c 61. 94  |
| Nebraska.....                |   | 14, 300     | 146, 139    | 171, 859    | 63. 11  |
| Kansas.....                  | 52, 891   | 137, 669    | 243, 300    | 258, 173    | 67. 77  |
| Western Division:            |   |             |             |             |   |
| Montana.....                 | 1, 100  | 3, 000      | 10, 596     | 18, 051     | 67. 25  |
| Wyoming.....                 | 250   | 1, 920      | 4, 700      | c 7, 074    | c 64. 00  |
| Colorado.....                | 2, 611  | 12, 618     | 28, 715     | 60, 843     | 67. 20  |
| New Mexico.....              | 889   | 3, 150      | 13, 000     | 15, 964     | 65. 93  |
| Arizona.....                 |   | 2, 847      | 4, 702      | a 6, 921    | a 61. 15  |
| Utah.....                    | 12, 819   | 17, 178     | 20, 967     | 40, 096     | 64. 49  |
| Nevada.....                  | 1, 800  | 5, 401      | 5, 664      | a 5, 047    | a 73. 93  |
| Idaho.....                   | 600   | 3, 863      | 9, 509      | a 16, 030   | a 66. 16  |
| Washington.....              | 3, 300  | 10, 546     | 36, 946     | 61, 676     | 68. 36  |
| Oregon.....                  | 15, 000   | 27, 435     | 43, 333     | 58, 405     | 70. 33  |
| California.....              | 64, 286   | 100, 966    | 146, 589    | 178, 044    | 71. 00  |

a In 1893-94.

b In 1891-92.

c Approximately.

TABLE 8.—(1) Average length of school term at various periods. (2) Aggregate number of days' schooling given to all pupils; the same compared with the school population and with the enrollment.

| State or Territory.           | Average number of days the schools were kept during the year. <sup>a</sup> |          |          |           | Aggregate number of days' schooling given in 1894-95. | Average number of days' schooling given for each child 5 to 18 years of age, in 1894-95. | Average number of days' schooling given by each pupil enrolled in 1894-95 |
|-------------------------------|--|----------|----------|-----------|---|--|---|
|                               | 1870-71.   | 1879-80. | 1889-90. | 1894-95.  |   |  |   |
| 1                             | 2  | 3        | 4        | 5         | 6   | 7  | 8   |
| United States .....           | 132.1  | 130.3    | 134.7    | 141.4     | 1,327,953,863   | 65.3   | 93.5  |
| North Atlantic Division ..... | 152.0  | 159.2    | 166.6    | 173.5     | 406,083,614   | 84.6   | 119.0   |
| South Atlantic Division ..... | 97.4   | 92.4     | 99.9     | 106.0     | 131,060,930   | 40.9   | 66.2  |
| South Central Division .....  | 91.6   | 79.2     | 88.2     | 99.6      | 172,946,694   | 40.7   | 63.6  |
| North Central Division .....  | 133.9  | 139.8    | 148.0    | 152.9     | 551,107,621   | 77.0   | 101.9   |
| Western Division .....        | 119.2  | 129.2    | 135.0    | 142.6     | 66,755,604  | 73.3   | 98.0  |
| North Atlantic Division:      |  |          |          |           |   |  |   |
| Maine .....                   | 98.0   | 109.0    | 112.0    | 133.0     | 12,746,853  | 79.7   | 94.0  |
| New Hampshire .....           | 70.0   | 105.3    | 117.7    | b 124.75  | b 5,243,243   | b 63.1   | b 87.6  |
| Vermont .....                 | 115.6  | 125.5    | 136.0    | 150.0     | 6,410,969   | 78.2   | 98.8  |
| Massachusetts .....           | 169.0  | 177.0    | 177.0    | 186.0     | 58,366,898  | 103.2  | 141.3   |
| Rhode Island .....            | 170.0  | 184.0    | 188.0    | 189.0     | 7,931,700   | 81.0   | 136.8   |
| Connecticut .....             | 172.4  | 179.0    | 182.5    | 183.32    | 17,637,767  | 93.8   | 127.0   |
| New York .....                | 176.0  | 178.5    | 186.5    | 176.0     | 139,794,981   | 89.0   | 120.7   |
| New Jersey .....              | 178.0  | 192.0    | 192.0    | 192.0     | 34,640,156  | 81.5   | 126.3   |
| Pennsylvania .....            | 127.2  | 133.4    | 147.6    | 158.2     | 123,311,047   | 75.8   | 115.5   |
| South Atlantic Division:      |  |          |          |           |   |  |   |
| Delaware .....                | 132.0  | 158.0    | 166.0    | c d 160.0 | c d 3,640,881   | c d 74.6   | c d 109.7   |
| Maryland .....                | 183.0  | 187.0    | 184.0    | 186.0     | 22,610,532  | 70.2   | 110.4   |
| District of Columbia .....    | 200.0  | 193.0    | 178.0    | 184.0     | 5,615,375   | 81.8   | 135.1   |
| Virginia .....                | 93.2   | 112.8    | 118.2    | 119.0     | 24,101,070  | 41.7   | 67.7  |
| West Virginia .....           | 76.8   | 90.0     | 97.0     | 101.0     | 14,188,985  | 50.9   | 65.2  |
| North Carolina .....          | c 50.0   | 50.0     | 59.2     | b 63.1    | b 14,531,993  | b 23.9   | b 39.2  |
| South Carolina .....          | c 100.0  | 70.0     | 69.6     | 70.0      | 11,147,780  | 24.3   | 50.0  |
| Georgia .....                 | 59.0   | c 65.0   | 83.3     | b 110.5   | b 28,977,273  | b 41.8   | b 66.3  |
| Florida .....                 |  |          | c 120.0  | b 97.4    | b 6,247,041   | b 41.4   | b 64.5  |
| South Central Division:       |  |          |          |           |   |  |   |
| Kentucky .....                | c 110.0  | 102.0    | 94.0     | 115.0     | 31,322,090  | 48.5   | 66.9  |
| Tennessee .....               | c 77.0   | 68.0     | 86.0     | b 92.5    | b 31,788,920  | b 50.9   | b 65.8  |
| Alabama .....                 | 66.5   | 81.3     | 73.5     | b c 73.0  | b c 13,512,300  | b c 22.2   | b c 44.2  |
| Mississippi .....             | 110.0  | 74.5     | c 86.0   | 105.4     | 20,390,426  | 39.0   | 53.2  |
| Louisiana .....               | c 65.0   | 78.8     | 100.6    | 106.0     | 11,597,815  | 27.6   | 74.4  |
| Texas .....                   | c 140.0  | 71.7     | 100.0    | b 100.0   | b 41,806,925  | b 46.1   | b 69.8  |
| Arkansas .....                |  |          | c 75.0   | 116.0     | 20,293,040  | 45.5   | 67.8  |
| Oklahoma .....                |  |          |          | 74.0      | 2,234,578   | 27.9   | 38.7  |
| North Central Division:       |  |          |          |           |   |  |   |
| Ohio .....                    | 165.0  | 152.0    | 166.5    | 165.0     | 97,921,725  | 91.1   | 119.8   |
| Indiana .....                 | 98.5   | 136.0    | 130.0    | b 142.5   | c 55,862,138  | c 83.2   | c 105.5   |
| Illinois .....                | 146.7  | 150.0    | 155.4    | 162.8     | 101,749,458   | 82.2   | 115.8   |
| Michigan .....                | 140.0  | 150.0    | 156.0    | b 156.0   | b c 49,237,188  | b c 67.1   | b c 88.4  |
| Wisconsin .....               | 155.0  | 165.0    | 158.6    | b 160.0   | c 41,760,000  | c 72.8   | c 105.1   |
| Minnesota .....               | c 83.0   | 94.0     | 128.0    | b 154.8   | c 25,502,836  | c 54.2   | c 72.8  |
| Iowa .....                    | 130.0  | 148.0    | 156.0    | 160.0     | 54,288,000  | 87.2   | 101.7   |
| Missouri .....                | 90.0   | c 104.0  | 129.4    | 140.0     | 55,591,267  | 60.0   | 86.2  |
| North Dakota .....            | } c 75.0   | c 96.0   | { 113.0  | b 120.0   | b 3,876,548   | b 52.8   | b 81.8  |
| South Dakota .....            |  |          |          | b c 136.0 | b c 7,456,800   | b c 63.5   | b c 84.9  |
| Nebraska .....                | 72.0   | 82.0     | 140.0    | 148.0     | 25,435,132  | 75.3   | 93.4  |
| Kansas .....                  | 116.0  | 129.0    | 135.0    | 125.6     | 32,426,529  | 73.8   | 85.1  |
| Western Division:             |  |          |          |           |   |  |   |
| Montana .....                 | c 89.0   | 96.0     | 142.7    | 147.5     | 2,661,910   | 75.6   | 99.2  |
| Wyoming .....                 | c 200.0  | 119.0    | c 120.0  | 104.0     | 995,661   | 49.1   | 50.1  |
| Colorado .....                | 92.0   | c 132.0  | 144.4    | d 150.1   | c 9,132,534   | c 79.8   | c 100.9   |
| New Mexico .....              | c 111.0  | 111.0    | c 67.0   | 87.0      | 1,388,868   | 28.2   | 57.3  |
| Arizona .....                 | 0  | 109.0    | 126.0    | b 124.0   | b 858,204   | b 45.0   | b 75.8  |
| Utah .....                    | 152.0  | 128.0    | 133.0    | 148.0     | 5,934,208   | 69.0   | 95.5  |
| Nevada .....                  | 142.0  | 143.0    | 140.0    | b 150.4   | b 759,069   | b 80.6   | b 111.2   |
| Idaho .....                   | c 45.0   | 94.0     | c 69.8   | b 109.4   | b 1,753,682   | b 55.5   | b 72.3  |
| Washington .....              | c 80.0   | c 91.0   | 97.2     | 95.5      | 5,890,058   | 54.6   | 65.3  |
| Oregon .....                  | c 90.0   | 90.0     | 118.2    | b 109.0   | c 6,366,145   | c 59.0   | c 76.7  |
| California .....              | 123.0  | 146.6    | 157.6    | 174.2     | 31,015,265  | 94.1   | 123.7   |

<sup>a</sup> Certain States report their school term in months. These have been uniformly reduced to days by multiplying by 20.

<sup>b</sup> In 1893-94.

<sup>c</sup> Approximately.

<sup>d</sup> In 1891-92.

*Observations on Table 8.*—The “aggregate number of days’ schooling given” to all pupils (see column 6), which is the same thing as the aggregate number of days attended by all the pupils, has been computed for those States which do not make an explicit report of this item by multiplying the average daily attendance of pupils by the average length of school term in days.

Conversely, the average length of school term (column 5) for the United States as a whole and for each of its geographical divisions has been obtained by dividing the aggregate number of days attended by the average daily attendance.

By this method the school term of each State, in taking the average, is in fact given a weight proportioned to the school attendance of the State, as should be done under a correct interpretation of the expression, “Average length of school term.” The result might more properly be called, “Average length of attendance,” which is essentially what it is desired to know.

A method in use in some States for finding the average school term, of a county, for instance, is to weight the different school terms of the towns or districts the county is composed of by the number of schools in each; in other words, the total number of days (or months) all the schools of a county were kept is divided by the total number of schools to get the average time each one was kept. So, in finding the average term for the State, the school is taken as the unit instead of the pupil, the Bureau’s method. When the schools differ much in size (number of pupils), as they do in all mixed urban and rural systems, varying from some half a dozen to 500 or more pupils each, the average term obtained by this method varies considerably from that obtained by the foregoing. The long terms of the large city schools not being given their proper weight, the resulting average is too small. The same objection applies still more forcibly to weighting the school terms of the different counties or towns by the number of school districts in each.

Still another method is to add together the school terms of the different counties or towns and divide by the number of such counties or towns; i. e., the simple arithmetical mean is taken. A conspicuous example of this occurs in the Indiana School Report of 1894 (p. 572) in the return from Marion County, where it is stated that 14,193 pupils in Indianapolis attended 185 days, and 856 pupils in West Indianapolis attended 160 days, while the average time the whole 15,049 pupils attended is computed at  $172\frac{1}{2}$  days, although nearly all (16 out of every 17) attended 185 days. This method, if it can be so called, gives altogether too short an average term, and nothing can be said in defense of it. It is as if, wishing to get the population per square mile of Minnesota and Dakota combined, we said, Minnesota, 9.86; Dakota, 0.92; average number of persons per square mile in the combined territory  $(0.92 + 9.86) \div 2 = 5.39$ , instead of dividing the total population of the two States by the combined area in square miles.

The “aggregate number of days’ attendance” is a statistical item of the utmost simplicity and of great value, about the meaning of which there can be little or no difference of opinion. Every teacher’s register that records the number of pupils present each day in any school, as they all presumably do, contains the data for ascertaining it for that school for the school year by the simple process of addition or summing up.



TABLE 9.—(1) *Length of school term.* (2) *The aggregate number of days' schooling given compared with the school population for a period of 25 years.*

| Year.        | Average length of school term, in days. |                          |                          |                         |                         |                   | Average number of days' schooling given for every child 5 to 18 years of age. |                          |                          |                         |                         |                   |
|--------------|---|--------------------------|--------------------------|-------------------------|-------------------------|-------------------|---|--------------------------|--------------------------|-------------------------|-------------------------|-------------------|
|              | The United States.                      | North Atlantic Division. | South Atlantic Division. | South Central Division. | North Central Division. | Western Division. | The United States.  | North Atlantic Division. | South Atlantic Division. | South Central Division. | North Central Division. | Western Division. |
| 1870-71..... | 132.1                                   | 152.0                    | 97.4                     | 91.6                    | 133.9                   | 119.2             | 48.7  | 70.2                     | 18.1                     | 21.8                    | 59.6                    | 45.9              |
| 1871-72..... | 133.4                                   | 151.9                    | 103.4                    | 97.7                    | 136.1                   | 121.8             | 49.5  | 68.9                     | 20.3                     | 25.8                    | 59.8                    | 46.0              |
| 1872-73..... | 129.1                                   | 154.6                    | 97.4                     | 89.1                    | 129.6                   | 118.3             | 47.8  | 67.9                     | 21.7                     | 23.4                    | 56.8                    | 45.0              |
| 1873-74..... | 128.8                                   | 154.8                    | 95.6                     | 81.1                    | 132.6                   | 119.0             | 49.6  | 70.4                     | 24.5                     | 21.9                    | 59.8                    | 46.1              |
| 1874-75..... | 130.4                                   | 158.7                    | 95.2                     | 81.0                    | 134.6                   | 132.5             | 51.0  | 72.9                     | 26.1                     | 23.5                    | 60.2                    | 53.6              |
| 1875-76..... | 133.1                                   | 158.0                    | 95.6                     | 82.5                    | 139.1                   | 130.3             | 51.4  | 73.7                     | 26.8                     | 20.1                    | 62.2                    | 54.4              |
| 1876-77..... | 132.1                                   | 157.2                    | 91.4                     | 80.3                    | 139.8                   | 130.1             | 51.1  | 73.6                     | 26.3                     | 19.8                    | 62.3                    | 54.3              |
| 1877-78..... | 132.0                                   | 157.6                    | 89.7                     | 86.7                    | 140.1                   | 129.9             | 53.2  | 75.6                     | 26.8                     | 24.3                    | 64.3                    | 54.5              |
| 1878-79..... | 130.2                                   | 160.1                    | 88.6                     | 81.9                    | 136.4                   | 132.0             | 52.0  | 75.0                     | 25.7                     | 23.9                    | 62.3                    | 56.7              |
| 1879-80..... | 130.3                                   | 159.2                    | 92.4                     | 79.2                    | 139.8                   | 129.2             | 53.1  | 74.5                     | 29.3                     | 24.2                    | 64.4                    | 54.9              |
| 1880-81..... | 130.1                                   | 158.7                    | 92.4                     | 82.1                    | 138.8                   | 133.8             | 52.0  | 72.2                     | 28.5                     | 25.0                    | 62.7                    | 56.9              |
| 1881-82..... | 131.2                                   | 160.6                    | 95.9                     | 82.5                    | 137.1                   | 136.2             | 52.9  | 73.3                     | 30.6                     | 25.6                    | 63.2                    | 58.0              |
| 1882-83..... | 129.8                                   | 161.0                    | 95.9                     | 82.5                    | 137.1                   | 132.6             | 53.8  | 74.4                     | 32.0                     | 26.8                    | 63.9                    | 57.3              |
| 1883-84..... | 129.1                                   | 156.0                    | 95.6                     | 85.9                    | 138.6                   | 133.8             | 55.5  | 72.5                     | 32.7                     | 30.0                    | 67.7                    | 61.6              |
| 1884-85..... | 130.7                                   | 163.1                    | 93.4                     | 87.5                    | 130.8                   | 131.8             | 56.8  | 77.2                     | 33.7                     | 31.4                    | 67.3                    | 58.3              |
| 1885-86..... | 130.4                                   | 161.6                    | 93.4                     | 86.9                    | 140.4                   | 130.8             | 57.3  | 76.7                     | 33.7                     | 32.0                    | 68.7                    | 59.6              |
| 1886-87..... | 131.3                                   | 165.9                    | 95.3                     | 87.5                    | 139.5                   | 131.6             | 57.7  | 77.8                     | 34.8                     | 32.1                    | 68.7                    | 59.1              |
| 1887-88..... | 132.3                                   | 164.4                    | 95.7                     | 87.6                    | 144.0                   | 130.7             | 58.7  | 76.8                     | 35.5                     | 33.6                    | 71.3                    | 57.3              |
| 1888-89..... | 133.7                                   | 164.1                    | 95.0                     | 88.9                    | 147.5                   | 135.7             | 58.9  | 76.7                     | 35.4                     | 34.0                    | 71.6                    | 61.7              |
| 1889-90..... | 134.7                                   | 166.6                    | 99.9                     | 88.2                    | 148.0                   | 135.0             | 59.2  | 76.8                     | 37.3                     | 33.9                    | 71.9                    | 61.2              |
| 1890-91..... | 135.7                                   | 168.1                    | 103.8                    | 92.0                    | 145.8                   | 136.9             | 60.4  | 77.9                     | 37.9                     | 35.5                    | 73.0                    | 64.0              |
| 1891-92..... | 136.9                                   | 169.1                    | 105.3                    | 94.1                    | 146.8                   | 139.1             | 61.1  | 78.5                     | 37.8                     | 37.1                    | 73.1                    | 68.7              |
| 1892-93..... | 136.3                                   | 169.0                    | 103.4                    | 93.0                    | 146.6                   | 138.8             | 61.4  | 78.5                     | 38.6                     | 36.6                    | 74.4                    | 67.5              |
| 1893-94..... | 139.0                                   | 172.5                    | 108.2                    | 99.9                    | 147.4                   | 138.3             | 63.6  | 81.4                     | 41.5                     | 40.6                    | 74.6                    | 69.1              |
| 1894-95..... | 141.4                                   | 173.5                    | 106.0                    | 99.6                    | 152.9                   | 142.6             | 65.3  | 84.6                     | 40.9                     | 40.7                    | 77.0                    | 73.3              |

TABLE 10.—*Number and sex of teachers. Proportion of male teachers.*

| State or Territory.          | Whole number of teachers employed. |         |         | Percentage of male teachers. |          |          |          |
|------------------------------|------------------------------------|---------|---------|------------------------------|----------|----------|----------|
|                              | Male.                              | Female. | Total.  | 1870-71.                     | 1879-80. | 1889-90. | 1894-95. |
| 1                            | 2                                  | 3       | 4       | 5                            | 6        | 7        | 8        |
| United States.....           | 128,376                            | 267,951 | 396,327 | 41.0                         | 42.8     | 34.5     | 32.4     |
| North Atlantic Division..... | 18,439                             | 79,471  | 97,910  | 26.2                         | 28.8     | 20.0     | 18.8     |
| South Atlantic Division..... | 20,753                             | 25,063  | 45,816  | 63.8                         | 62.5     | 49.1     | 45.3     |
| South Central Division.....  | 30,408                             | 27,301  | 57,709  | 67.5                         | 67.2     | 57.5     | 52.7     |
| North Central Division.....  | 52,671                             | 121,796 | 174,467 | 43.2                         | 41.7     | 32.4     | 30.2     |
| Western Division.....        | 6,105                              | 14,320  | 20,425  | 45.0                         | 40.3     | 31.1     | 29.9     |
| North Atlantic Division:     |                                    |         |         |                              |          |          |          |
| Maine.....                   | a 1,206                            | a 5,430 | 6,636   | a 24.4                       | a 27.2   | a 16.0   | a 18.2   |
| New Hampshire.....           | b 280                              | b 2,907 | 3,187   | 15.0                         | 16.8     | 9.8      | 6.8      |
| Vermont.....                 | 497                                | 3,214   | 3,711   | 16.5                         | 16.8     | 12.0     | 13.4     |
| Massachusetts.....           | 1,046                              | 10,981  | 12,027  | 12.7                         | 13.2     | 9.8      | 8.7      |
| Rhode Island.....            | 172                                | 1,448   | 1,620   | a 20.4                       | 20.2     | 12.6     | 10.6     |
| Connecticut.....             | 378                                | 3,255   | 3,633   | a 22.1                       | a 22.8   | a 13.4   | 10.4     |
| New York.....                | 5,476                              | 30,148  | 35,624  | 22.9                         | 26.0     | 16.9     | 15.4     |
| New Jersey.....              | 756                                | 4,628   | 5,384   | 32.5                         | 28.5     | 18.4     | 14.0     |
| Pennsylvania.....            | 8,628                              | 17,460  | 26,088  | 42.8                         | 45.5     | 34.2     | 33.1     |
| South Atlantic Division:     |                                    |         |         |                              |          |          |          |
| Delaware.....                | c 218                              | c 622   | c 840   | a 29.9                       | a 46.6   | a 31.0   | 26.0     |
| Maryland.....                | 1,089                              | 3,424   | 4,513   | 45.0                         | 42.6     | 27.8     | 24.1     |
| District of Columbia.....    | 126                                | 865     | 991     | 8.2                          | 7.8      | 13.0     | 12.7     |
| Virginia.....                | 3,039                              | 5,253   | 8,292   | 64.5                         | 61.8     | 41.5     | 36.6     |
| West Virginia.....           | 3,765                              | 2,534   | 6,299   | 79.0                         | 75.2     | 63.4     | 59.8     |
| North Carolina.....          | b 4,535                            | b 3,825 | b 8,360 | a 73.2                       | a 71.3   | 59.1     | b 51.2   |
| South Carolina.....          | 2,140                              | 2,425   | 4,565   | 62.4                         | 59.5     | 49.6     | 46.9     |
| Georgia.....                 | b 4,547                            | b 4,486 | b 9,033 | 71.4                         | a 65.2   | 53.3     | b 50.3   |
| Florida.....                 | b 1,294                            | b 1,629 | b 2,923 | a 65.7                       | 61.6     | 48.0     | b 44.3   |

a Approximately.

b In 1893-94.

c In 1891-92.

TABLE 10.—*Number and sex of teachers. Proportion of male teachers—Continued.*

| State or Territory.            | Whole number of teachers employed. |           |           | Percentage of male teachers. |          |          |          |
|--------------------------------|------------------------------------|-----------|-----------|------------------------------|----------|----------|----------|
|                                | Male.                              | Female.   | Total.    | 1870-71.                     | 1879-80. | 1889-90. | 1894-95. |
| 1                              | 2                                  | 3         | 4         | 5                            | 6        | 7        | 8        |
| <b>South Central Division:</b> |                                    |           |           |                              |          |          |          |
| Kentucky.....                  | 4,574                              | 5,377     | 9,951     | a 66.0                       | 64.6     | 49.8     | 46.0     |
| Tennessee.....                 | b 5,151                            | b 3,686   | b 8,837   | a 75.0                       | 74.4     | 61.8     | b 58.3   |
| Alabama.....                   | a b 4,168                          | a b 2,440 | a b 6,608 | 66.8                         | 63.8     | 62.9     | a b 63.1 |
| Mississippi.....               | 3,647                              | 4,208     | 7,855     | a 60.8                       | 61.2     | 49.6     | 46.4     |
| Louisiana.....                 | 1,371                              | 2,050     | 3,421     | 50.9                         | 46.1     | 44.7     | 40.1     |
| Texas.....                     | b 6,563                            | b 5,899   | b 12,462  | a 77.3                       | a 75.0   | 61.1     | b 52.7   |
| Arkansas.....                  | 4,267                              | 2,653     | 6,920     | a 75.6                       | 78.4     | 68.5     | 61.7     |
| Oklahoma.....                  | 667                                | 988       | 1,655     |                              |          |          | 40.3     |
| <b>North Central Division:</b> |                                    |           |           |                              |          |          |          |
| Ohio.....                      | 10,266                             | 14,738    | 25,004    | 43.2                         | 47.8     | 43.1     | 41.1     |
| Indiana.....                   | 6,631                              | 7,238     | 13,869    | 60.5                         | 57.5     | 51.1     | 47.8     |
| Illinois.....                  | 7,017                              | 18,090    | 25,107    | 43.5                         | 39.7     | 32.5     | 27.9     |
| Michigan.....                  | b 3,479                            | b 12,711  | b 16,190  | 26.3                         | 29.2     | 22.3     | b 21.5   |
| Wisconsin.....                 | 2,346                              | 9,988     | 12,334    | a 28.8                       | 28.9     | 19.8     | 19.0     |
| Minnesota.....                 | 2,439                              | 8,271     | 10,710    | 33.7                         | 35.9     | 23.9     | 22.8     |
| Iowa.....                      | 5,726                              | 22,117    | 27,843    | 39.0                         | 33.6     | 20.6     | 20.6     |
| Missouri.....                  | 5,814                              | 8,673     | 14,487    | 65.3                         | 58.1     | 44.4     | 41.1     |
| North Dakota.....              | b 812                              | b 1,888   | b 2,700   | } a 24.7                     | a 40.8   | { 28.3   | b 30.1   |
| South Dakota.....              | b 1,368                            | b 3,448   | b 4,816   |                              |          |          | b 28.4   |
| Nebraska.....                  | 2,548                              | 6,943     | 9,491     | 51.9                         | 40.7     | 27.1     | 26.8     |
| Kansas.....                    | a 4,225                            | a 7,691   | 11,916    | 47.2                         | 45.1     | 40.8     | a 35.5   |
| <b>Western Division:</b>       |                                    |           |           |                              |          |          |          |
| Montana.....                   | 203                                | 675       | 878       | a 60.3                       | 33.5     | 22.9     | 23.1     |
| Wyoming.....                   | 112                                | 362       | 474       | a 28.6                       | 44.3     | 22.4     | 23.6     |
| Colorado.....                  | a c 700                            | a c 2,195 | a c 2,895 | 48.8                         | 36.4     | 26.2     | a c 24.2 |
| New Mexico.....                | 343                                | 251       | 594       | a 91.7                       | 78.0     | a 62.2   | 57.7     |
| Arizona.....                   | b 102                              | b 191     | b 293     |                              | 47.5     | 38.8     | b 34.8   |
| Utah.....                      | 539                                | 654       | 1,193     | 55.0                         | 54.5     | 46.6     | 45.2     |
| Nevada.....                    | b 42                               | b 237     | b 279     | 32.4                         | 46.7     | 16.3     | b 15.1   |
| Idaho.....                     | b 301                              | b 411     | b 712     | a 64.3                       | 57.4     | a 33.4   | b 42.8   |
| Washington.....                | 1,223                              | 2,102     | 3,325     | a 46.5                       | 37.4     | 40.6     | 36.8     |
| Oregon.....                    | 1,186                              | 1,976     | 3,162     | a 51.7                       | 48.3     | 43.3     | 37.5     |
| California.....                | 1,354                              | 5,266     | 6,620     | 40.0                         | 33.6     | 21.4     | 20.4     |

a Approximately.

b In 1893, 94.

c In 1892-93

TABLE 11.—*Showing, for a period of years, what per cent of the whole number of teachers are males.*

| Year.        | United States. | North Atlantic Division. | South Atlantic Division. | South Central Division. | North Central Division. | Western Division. |
|--------------|----------------|--------------------------|--------------------------|-------------------------|-------------------------|-------------------|
| 1870-71..... | 41.0           | 26.2                     | 63.8                     | 67.5                    | 43.2                    | 45.0              |
| 1871-72..... | 41.3           | 26.1                     | 63.4                     | 68.3                    | 43.4                    | 43.5              |
| 1872-73..... | 41.2           | 25.1                     | 63.3                     | 68.9                    | 42.8                    | 43.0              |
| 1873-74..... | 41.6           | 26.8                     | 62.9                     | 69.4                    | 42.5                    | 44.5              |
| 1874-75..... | 42.2           | 26.7                     | 63.3                     | 69.1                    | 42.5                    | 44.1              |
| 1875-76..... | 42.3           | 27.9                     | 63.1                     | 68.0                    | 42.4                    | 45.3              |
| 1876-77..... | 42.8           | 28.2                     | 62.7                     | 67.8                    | 43.0                    | 44.4              |
| 1877-78..... | 43.1           | 28.5                     | 62.6                     | 67.7                    | 42.8                    | 43.0              |
| 1878-79..... | 43.3           | 29.1                     | 62.8                     | 67.8                    | 42.7                    | 42.3              |
| 1879-80..... | 42.8           | 28.8                     | 62.5                     | 67.2                    | 41.7                    | 40.3              |
| 1880-81..... | 41.7           | 27.4                     | 61.4                     | 67.0                    | 39.9                    | 37.3              |
| 1881-82..... | 39.7           | 25.7                     | 59.4                     | 65.8                    | 37.7                    | 37.1              |
| 1882-83..... | 38.2           | 23.9                     | 57.3                     | 63.5                    | 35.9                    | 35.9              |
| 1883-84..... | 37.9           | 23.4                     | 56.5                     | 63.2                    | 35.3                    | 34.5              |
| 1884-85..... | 37.4           | 22.5                     | 55.6                     | 62.9                    | 34.8                    | 34.6              |
| 1885-86..... | 37.4           | 22.4                     | 54.5                     | 62.2                    | 35.2                    | 34.2              |
| 1886-87..... | 37.4           | 22.6                     | 53.4                     | 63.5                    | 34.8                    | 34.5              |
| 1887-88..... | 36.4           | 21.6                     | 53.2                     | 60.7                    | 34.0                    | 30.8              |
| 1888-89..... | 34.9           | 20.2                     | 51.7                     | 58.8                    | 32.3                    | 31.2              |
| 1889-90..... | 34.5           | 20.0                     | 49.1                     | 57.5                    | 32.4                    | 31.1              |
| 1890-91..... | 33.5           | 19.4                     | 47.0                     | 56.4                    | 31.4                    | 30.4              |
| 1891-92..... | 32.5           | 18.9                     | 46.3                     | 55.5                    | 29.7                    | 30.0              |
| 1892-93..... | 32.0           | 19.1                     | 45.2                     | 55.7                    | 28.7                    | 29.3              |
| 1893-94..... | 32.2           | 19.0                     | 45.1                     | 53.7                    | 29.4                    | 29.6              |
| 1894-95..... | 32.4           | 18.8                     | 45.3                     | 52.7                    | 30.2                    | 29.9              |

TABLE 12.—Average monthly salaries of teachers.

NOTE.—Where annual salaries only are reported, they have been divided by the number of months taught to obtain the monthly salary, not by 12.

| State or Territory.                    | Males.          | Females.       |
|--|-----------------|----------------|
| 1                                      | 2               | 3              |
| United States <i>a</i> .....           | \$16.82         | \$39.41        |
| North Atlantic Division .....          | 61.07           | 43.87          |
| South Atlantic Division <i>a</i> ..... | 30.90           | 30.73          |
| South Central Division <i>a</i> .....  | 42.75           | 35.54          |
| North Central Division <i>a</i> .....  | 45.27           | 36.44          |
| Western Division <i>a</i> .....        | 64.65           | 56.52          |
| North Atlantic Division:               |                 |                |
| Maine .....                            | <i>b</i> 43.31  | <i>b</i> 27.74 |
| New Hampshire (1893-94) .....          | 49.78           | 27.36          |
| Vermont .....                          | 37.28           | 25.40          |
| Massachusetts .....                    | 128.55          | 48.38          |
| Rhode Island .....                     | 101.83          | 50.06          |
| Connecticut .....                      | 85.58           | 41.88          |
| New York .....                         | <i>c</i> 74.95  | <i>c</i> 51.33 |
| New Jersey .....                       | 82.59           | 47.04          |
| Pennsylvania .....                     | 44.52           | 38.34          |
| South Atlantic Division:               |                 |                |
| Delaware (1889-90) .....               | 36.60           | 34.08          |
| Maryland .....                         | <i>c</i> 48.00  | <i>c</i> 40.40 |
| District of Columbia .....             | <i>c</i> 111.02 | <i>c</i> 69.00 |
| Virginia .....                         | 32.82           | 26.95          |
| West Virginia .....                    |                 |                |
| North Carolina (1893-94) .....         | 24.60           | 21.68          |
| South Carolina .....                   | 25.46           | 22.32          |
| Georgia .....                          |                 |                |
| Florida (1893-94) .....                | 35.50           | 34.00          |
| South Central Division:                |                 |                |
| Kentucky .....                         | 41.94           | 34.54          |
| Tennessee .....                        | ( <i>d</i> )    | ( <i>d</i> )   |
| Alabama .....                          |                 |                |
| Mississippi .....                      | 31.55           | 26.66          |
| Louisiana .....                        | 34.09           | 30.73          |
| Texas (1892-93) .....                  | 56.71           | 46.48          |
| Arkansas .....                         | 35.76           | 31.97          |
| Oklahoma (1891-92) .....               | 34.20           | 32.90          |
| North Central Division:                |                 |                |
| Ohio .....                             | 42.00           | 39.00          |
| Indiana (1893-94) .....                | 47.60           | 41.20          |
| Illinois .....                         | 51.45           | 37.65          |
| Michigan (1893-94) .....               | 48.00           | 35.08          |
| Wisconsin .....                        | 47.30           | 35.40          |
| Minnesota (1893-94) .....              | 46.49           | 35.08          |
| Iowa .....                             | 37.68           | 31.63          |
| Missouri .....                         | 49.50           | 42.50          |
| North Dakota (1893-94) .....           | 44.75           | 39.03          |
| South Dakota .....                     |                 |                |
| Nebraska .....                         | 44.18           | 38.66          |
| Kansas .....                           | 40.40           | 33.73          |
| Western Division:                      |                 |                |
| Montana .....                          | 64.13           | 49.72          |
| Wyoming .....                          | 58.81           | 47.24          |
| Colorado (1893-94) .....               | 72.76           | 53.75          |
| New Mexico .....                       |                 |                |
| Arizona (1891-92) .....                | 85.81           | 73.15          |
| Utah .....                             | 65.46           | 40.19          |
| Nevada (1893-94) .....                 | 101.24          | 63.65          |
| Idaho .....                            |                 |                |
| Washington .....                       | 47.62           | 42.28          |
| Oregon .....                           | 46.41           | 38.27          |
| California .....                       | <i>c</i> 89.60  | <i>c</i> 73.19 |

*a* Includes only the States tabulated.

*b* Including board, estimated at \$8.20 for male teachers and \$7.70 for females

*c* Approximately.

*d* Average for both sexes, \$30.62.

TABLE 13.—*Schoolhouses and school property.*

| State or Territory.           | Number of school-houses. | Estimated value of all school property. |
|-------------------------------|--------------------------|---|
| 1                             | 2                        | 3                                       |
| United States.....            | 237, 416                 | \$439, 071, 660                         |
| North Atlantic Division ..... | 43, 698                  | 108, 233, 558                           |
| South Atlantic Division ..... | 35, 918                  | 19, 131, 821                            |
| South Central Division .....  | 46, 688                  | 22, 678, 783                            |
| North Central Division .....  | 100, 789                 | 192, 503, 915                           |
| Western Division.....         | 10, 923                  | 36, 523, 613                            |
| North Atlantic Division:      |                          |   |
| Maine.....                    | 4, 242                   | 3, 677, 715                             |
| New Hampshire (1893-94).....  | 1, 998                   | 3, 086, 824                             |
| Vermont.....                  | 2, 334                   | 2, 000, 000                             |
| Massachusetts.....            | a 4, 590                 | 35, 056, 605                            |
| Rhode Island.....             | 515                      | 4, 124, 887                             |
| Connecticut.....              | 1, 632                   | 8, 450, 000                             |
| New York.....                 | 11, 985                  | 53, 400, 016                            |
| New Jersey.....               | 1, 780                   | 11, 819, 712                            |
| Pennsylvania.....             | 14, 622                  | 46, 617, 109                            |
| South Atlantic Division:      |                          |   |
| Delaware.....                 | a b 497                  | b 904, 426                              |
| Maryland.....                 | a 2, 333                 | c 4, 000, 000                           |
| District of Columbia.....     | d 104                    | 3, 260, 027                             |
| Virginia.....                 | 6, 873                   | 2, 982, 829                             |
| West Virginia.....            | 5, 502                   | 3, 165, 536                             |
| North Carolina (1893-94)..... | 6, 637                   | 1, 153, 148                             |
| South Carolina.....           | 4, 052                   | 810, 218                                |
| Georgia (1893-94).....        | a 7, 849                 | c 2, 290, 000                           |
| Florida (1893-94).....        | 2, 051                   | 550, 637                                |
| South Central Division:       |                          |   |
| Kentucky.....                 | 8, 040                   | 5, 900, 543                             |
| Tennessee (1893-94).....      | 6, 919                   | 2, 875, 062                             |
| Alabama (1893-94).....        | a 6, 687                 | c 1, 373, 000                           |
| Mississippi.....              | 6, 264                   | 1, 626, 655                             |
| Louisiana.....                | a 2, 746                 | c 865, 000                              |
| Texas (1893-94).....          | c 9, 460                 | c 6, 916, 000                           |
| Arkansas.....                 | 5, 254                   | 2, 113, 123                             |
| Oklahoma.....                 | 718                      | 1, 000, 000                             |
| North Central Division:       |                          |   |
| Ohio.....                     | 13, 039                  | 38, 925, 896                            |
| Indiana.....                  | 9, 327                   | e 18, 867, 494                          |
| Illinois.....                 | 12, 250                  | 34, 731, 263                            |
| Michigan (1893-94).....       | 7, 769                   | 16, 584, 399                            |
| Wisconsin.....                | 6, 890                   | 12, 000, 000                            |
| Minnesota.....                | 6, 583                   | 14, 020, 589                            |
| Iowa.....                     | 13, 613                  | 15, 615, 543                            |
| Missouri.....                 | 10, 000                  | 15, 993, 445                            |
| North Dakota (1893-94).....   | 1, 770                   | 1, 910, 639                             |
| South Dakota (1893-94).....   | 3, 524                   | 3, 434, 805                             |
| Nebraska.....                 | 6, 687                   | 8, 889, 842                             |
| Kansas.....                   | 9, 337                   | 11, 500, 000                            |
| Western Division:             |                          |   |
| Montana.....                  | 572                      | 1, 741, 596                             |
| Wyoming.....                  | 305                      | f 424, 101                              |
| Colorado (1893-94).....       | 1, 509                   | 5, 998, 937                             |
| New Mexico.....               | a 499                    | 272, 296                                |
| Arizona (1893-94).....        | a 289                    | 405, 446                                |
| Utah.....                     | a g 893                  | 2, 355, 673                             |
| Nevada (1893-94).....         | 190                      | 282, 946                                |
| Idaho (1893-94).....          | 539                      | 733, 211                                |
| Washington.....               | 1, 848                   | 5, 008, 937                             |
| Oregon.....                   | e 1, 795                 | 2, 891, 840                             |
| California.....               | 3, 464                   | 16, 408, 630                            |

a Number of schools.

b In 1891-92.

c Approximately.

d Also three rooms rented.

e In 1893-94.

f Value of buildings only.

g In 1892-93.



TABLE 14.—*Private schools.*

NOTE.—Many of the reports of private schools are incomplete.

| State or Territory.                    | Number of pupils in private schools. | Total public and private enrollment. | Per cent of pupils in private schools. |
|--|--------------------------------------|--------------------------------------|--|
| 1                                      | 2                                    | 3                                    | 4                                      |
| United States .....                    | 1, 211, 220                          | 15, 412, 972                         | 7. 86                                  |
| North Atlantic Division.....           | <i>a</i> 508, 500                    | 3, 920, 362                          | 12. 71                                 |
| South Atlantic Division.....           | <i>a</i> 104, 720                    | 2, 085, 257                          | 5. 02                                  |
| South Central Division.....            | <i>a</i> 161, 500                    | 2, 880, 756                          | 5. 61                                  |
| North Central Division.....            | <i>a</i> 385, 800                    | 5, 794, 723                          | 6. 66                                  |
| Western Division.....                  | <i>a</i> 50, 700                     | 731, 869                             | 6. 93                                  |
| North Atlantic Division:               |                                      |                                      |  |
| Maine.....                             |                                      |                                      |  |
| New Hampshire (1893-94).....           | 7, 425                               | 69, 862                              | 10. 63                                 |
| Vermont.....                           | 4, 211                               | 69, 129                              | 6. 09                                  |
| Massachusetts.....                     | 64, 688                              | 477, 641                             | 13. 54                                 |
| Rhode Island.....                      | 15, 219                              | 73, 190                              | 20. 80                                 |
| Connecticut.....                       | 21, 306                              | 160, 188                             | 13. 30                                 |
| New York.....                          | 165, 860                             | 1, 324, 203                          | 12. 52                                 |
| New Jersey.....                        | 45, 699                              | 319, 969                             | 14. 28                                 |
| Pennsylvania.....                      |                                      |                                      |  |
| South Atlantic Division:               |                                      |                                      |  |
| Delaware.....                          |                                      |                                      |  |
| Maryland.....                          |                                      |                                      |  |
| District of Columbia ( <i>b</i> )..... | 4, 429                               | 31, 332                              | 14. 14                                 |
| Virginia.....                          | 25, 970                              | 381, 956                             | 6. 80                                  |
| West Virginia (1893-94).....           | 1, 894                               | 220, 709                             | . 86                                   |
| North Carolina (1891-92).....          | 26, 198                              | 361, 566                             | 7. 25                                  |
| South Carolina.....                    |                                      |                                      |  |
| Georgia (1893-94).....                 | 14, 151                              | 450, 833                             | 3. 14                                  |
| Florida.....                           |                                      |                                      |  |
| South Central Division:                |                                      |                                      |  |
| Kentucky.....                          | 26, 400                              | 494, 371                             | 5. 34                                  |
| Tennessee (1891-92).....               | 45, 428                              | 532, 935                             | 8. 53                                  |
| Alabama.....                           |                                      |                                      |  |
| Mississippi.....                       | 21, 203                              | 371, 818                             | 5. 70                                  |
| Louisiana.....                         |                                      |                                      |  |
| Texas.....                             |                                      |                                      |  |
| Arkansas.....                          | 2, 325                               | 301, 617                             | . 77                                   |
| Oklahoma.....                          |                                      |                                      |  |
| North Central Division:                |                                      |                                      |  |
| Ohio.....                              |                                      |                                      |  |
| Indiana.....                           |                                      |                                      |  |
| Illinois.....                          | 117, 235                             | 995, 773                             | 11. 77                                 |
| Michigan (1893-94).....                | 44, 842                              | 513, 821                             | 8. 73                                  |
| Wisconsin.....                         | 50, 164                              | 447, 635                             | 11. 21                                 |
| Minnesota.....                         | 20, 073                              | 664, 650                             | 3. 02                                  |
| Iowa.....                              | 34, 153                              | 567, 977                             | 6. 01                                  |
| Missouri (1893-94).....                | 16, 736                              | 674, 241                             | 2. 48                                  |
| North Dakota (1893-94).....            | 400                                  | 47, 761                              | . 84                                   |
| South Dakota (1893-94).....            | 1, 888                               | 89, 714                              | 2. 10                                  |
| Nebraska.....                          |                                      |                                      |  |
| Kansas.....                            |                                      |                                      |  |
| Western Division:                      |                                      |                                      |  |
| Montana (1893-94).....                 | 839                                  | 26, 559                              | 3. 16                                  |
| Wyoming.....                           | 175                                  | 11, 228                              | 1. 56                                  |
| Colorado (1892-93).....                | 3, 813                               | 80, 902                              | 4. 71                                  |
| New Mexico.....                        | 3, 906                               | 28, 126                              | 13. 89                                 |
| Arizona.....                           |                                      |                                      |  |
| Utah (1891-92).....                    | 10, 934                              | 67, 322                              | 16. 47                                 |
| Nevada (1893-94).....                  | 388                                  | 1, 215                               | 5. 38                                  |
| Idaho.....                             |                                      |                                      |  |
| Washington.....                        | 4, 113                               | 94, 330                              | 4. 36                                  |
| Oregon (1893-94).....                  | 5, 112                               | 83, 053                              | 6. 15                                  |
| California.....                        | 20, 502                              | 271, 203                             | 7. 56                                  |

*a* An estimate for all the States of the division.*b* White schools only.

## RELATIVE GROWTH OF PUBLIC AND PRIVATE SCHOOLS.

The question as to the relative growth of public and private schools would seem to admit of being settled by a consideration of the past and present statistics of public and private school attendance. But the statistics of private school attendance are reported by only a few States, and these are for the most part imperfect and

fragmentary. The most complete, and apparently the most reliable, statistics of private schools, running through a series of years, are furnished by the annual State school reports of Rhode Island, Massachusetts, and Connecticut.

## RHODE ISLAND.

Rhode Island has taken for about two decades an annual school census, in which are reported: (1) The number of children between 5 and 15 years of age, inclusive; (2) the number of these attending Catholic schools; (3) the number attending "select" schools (these presumably including all non-Catholic private schools); and (4) the number not attending any school. The results at four different epochs are as follows:

|  | 1880.   | 1884.   | 1889.   | 1894.   |
|--|---------|---------|---------|---------|
| Children 5 to 15 years (inclusive) ..... | 52, 273 | 58, 858 | 64, 905 | 73, 290 |
| Number of these reported as attending—   |         |         |         |         |
| Catholic schools .....                   | 4, 817  | 6, 022  | 7, 974  | 10, 766 |
| Select schools .....                     | 1, 891  | 1, 922  | 1, 777  | 1, 573  |
| Public schools .....                     | 33, 504 | 38, 152 | 43, 098 | 49, 074 |
| Not attending any school .....           | 12, 279 | 12, 894 | 12, 056 | 11, 877 |
| Per cent in schools:                     |         |         |         |         |
| Catholic .....                           | 9. 21   | 10. 23  | 12. 29  | 14. 69  |
| Select .....                             | 3. 62   | 3. 27   | 2. 74   | 2. 15   |
| Public .....                             | 64. 09  | 64. 82  | 66. 42  | 66. 97  |
| Nonattendants .....                      | 23. 49  | 21. 91  | 18. 55  | 16. 19  |
| Total .....                              | 100. 41 | 100. 23 | 100. 00 | 100. 00 |

During the interval of fourteen years covered by this table the Catholic schools have made a gain of 5.48 pupils in every 100 census children. This gain has not been at the expense of the public schools, however, as the public schools themselves have made a gain of 2.98 pupils in the same interval. Both these classes of schools have gained from the ranks of the nonattendants and to a lesser degree from the select schools.

The opposition of the Catholic Church to the public schools is based upon well-understood grounds, involving the question of religious instruction according to its own creed to the pupils of its own faith as a part of the school course of study. This opposition has always existed, and the church will doubtless continue to pursue its declared policy of establishing and maintaining its own schools, as there is no present prospect of any other alternative, the question of division of the school funds and of compromise schools having well-nigh ceased even to be discussed in the United States generally. Increasing density and aggregation of population and larger financial resources are enabling the church to carry out always more effectually its policy of educating its own children, and to these circumstances may be attributed the gain which has been made in the Catholic schools of Rhode Island.

That there exists no general dissatisfaction with the public schools on pedagogical grounds, or on any grounds that would lead them to be supplanted more or less gradually by private schools, seems to be established by the figures relating to select schools in the foregoing table, which show not only a relative loss in the attendance upon these schools, but an absolute decrease of 318 pupils, while the number of census children has increased about 21,000, and the public school pupils over 15,000.

## MASSACHUSETTS.

Similar results may be deduced from a consideration of the statistics of the Massachusetts reports. Here we have no denominational classification, but a division of the nonpublic schools into "academies" and "private schools," the former class probably embracing in a general way the secondary schools, with or without preparatory departments, and the latter class the purely elementary schools. Moreover,

all the pupils of each class are given, there being no age limits, as in the case of Rhode Island, so that the number of pupils in school exceeds the total number of children 5 to 15 years of age enumerated by the school census. The returns of private school attendance are made in Massachusetts by the local school officials along with their other returns, and are not reported by the special census enumerators.

The results are as follows, taking the same years as before:

|  | 1880.   | 1884.   | 1889.   | 1894.   |
|--|---------|---------|---------|---------|
| Children between 5 and 15 years (by State school census) . . . | 307,321 | 336,195 | 367,785 | 400,325 |
| Pupils of all ages:  |         |         |         |         |
| In academies . . . . .   | 10,398  | 9,132   | 16,043  | 17,844  |
| In private schools . . . . .                                   | 15,891  | 25,306  | 37,620  | 48,319  |
| In public schools . . . . .                                    | 306,777 | 342,012 | 363,166 | 400,609 |
| Pupils for every 100 school census children:                   |         |         |         |         |
| In academies . . . . .   | 3.38    | 2.72    | 4.36    | 4.46    |
| In private schools . . . . .                                   | 5.17    | 7.53    | 10.23   | 12.07   |
| In public schools . . . . .                                    | 99.82   | 101.72  | 98.74   | 100.07  |

Here both classes of nonpublic schools show a gain in attendance as compared with the school population; and as the gain is especially marked in the case of the elementary ("private") schools, they having advanced from 5.17 to 12.07 pupils per 100 school census children, it is not unreasonable to assume, in the absence of positive knowledge, that the same agencies are at work as in the adjoining and similarly situated State of Rhode Island, and that the increase in the "private" school attendance of Massachusetts is largely due to the growth of the Catholic parochial school system. However this may be, there has been no encroachment upon the public schools in Massachusetts, which enroll, as compared with the school population, a number slightly larger in 1894 than in 1880, viz, 100.07 per 100 census children in 1894 and 99.82 per 100 in 1880.

# CONNECTICUT.

In Connecticut the private school attendance can be given only in bulk, without classification. The private school attendants and the nonattendants are reported by the school census enumerators, and limited to those between 4 and 16 years of age. The public school attendance is based upon teachers' reports, and includes pupils of all ages. The figures are as follows:

|   | 1880.   | 1884.   | 1889.   | 1894.   |
|---|---------|---------|---------|---------|
| Children enumerated between 4 and 16 years of age (State school census) . . . . . | 140,235 | 150,601 | 157,243 | 169,457 |
| Enumerated children in private schools . . . . .                                  | 12,643  | 14,580  | 18,269  | 21,460  |
| Pupils of all ages in public schools . . . . .                                    | 119,694 | 123,230 | 127,089 | 135,048 |
| Enumerated children in no school . . . . .  | 13,565  | 20,199  | 29,425  | 29,382  |
| Per cent of enumerated children:  |         |         |         |         |
| In private schools . . . . .  | 9.02    | 9.68    | 11.62   | 12.66   |
| In no school . . . . .  | 9.67    | 13.42   | 18.71   | 17.30   |
| Pupils in public schools for every 100 enumerated children . . .                  | 85.37   | 81.86   | 80.82   | 80.28   |

This table would seem to show that the private schools have gained 3.64 pupils per 100 census children in the fourteen years, while the nonattendants have increased 7.63 during the same period, making a total increase in these two classes of 11.27. This increase of 11.27 must have been at the expense of the only remaining class, i. e., the public schools; but the public schools have lost only 5.09 pupils (of all ages) per 100 census children. This inconsistency can proceed only from errors in the reports of census enumerators or teachers, or both. In point of fact, the annual

State school reports covering the early portion of the period embraced in the table make frequent complaint of inaccuracies in the school census; that the lists are carelessly compiled, "are often made without visiting families, upon estimates" (Report 1885, p. 24), etc. It is useless to attempt to base upon such data any conclusions regarding the relative growth of public and private schools, but there are certain considerations bearing upon the matter which may be mentioned.

First. In the case of enumerators making up their lists without visiting families and upon estimates, whether from their own personal knowledge or from hearsay, they would assuredly get their best results in the better quarter of cities and towns, among the old-established and well-known families of business men, mechanics, etc. Among the lower classes of laboring people, on the other hand, including factory operatives and others of migratory habits and difficult to keep run of, in obscure quarters and in the slums, there would be more disposition for the enumerators to shirk their work, and more difficulty in doing it well if they made an honest effort. Now, it is among these latter classes that most of the nonattendants are found, especially in Connecticut; and the presumption from the figures and State reports is that these nonattendants were not hunted up and reported as fully in 1880 as in 1894. There are, therefore, good grounds for surmising that the apparent large increase in the ranks of nonattendants arises from imperfect reports in the earlier years.

Second. What increase there is in the number of nonattendants is probably due, in large measure, to the growing indisposition to send children to school at as early an age as formerly. This trend of opinion found expression in the Connecticut law of 1877, which authorized school visitors to exclude from school, when they saw fit, children below the age of 5 years. Six years is now becoming generally recognized as the proper age for a child to begin his school education. If we take the children from 8 to 14 years of age only, the number of nonattendants will be found to be decreasing. In Connecticut in 1884 there were 2,841 nonattendants from 8 to 14 years of age, or 1.90 per cent of the school population; in 1894 there were only 2,292 or 1.35 per cent of the school population.

Third. This withdrawal of young children from school may also explain in part the comparative loss in attendance on the public schools; but there can be no doubt that this apparent loss is occasioned in part by former exaggerated reports of enrollment. The same public school pupils used to be, and still are in many localities in the United States, enrolled in two or more towns, schools, or even classes in the same school. It was only in the seventies that Massachusetts began to exclude duplicate enrollments from the reports of school attendance, and it is highly probable that the practice of registering pupils more than once existed in Connecticut as elsewhere, and if the figures for the earlier years in the foregoing table were corrected for duplicate registration they would probably be somewhat lessened, even to the extent of showing a gain for the late years, instead of loss.

With these considerations in mind, it would be hazardous to assert that the figures prove that the private schools have been gaining in Connecticut at the expense of the public.



TABLE 15.—Receipts of school moneys.

| State or Territory.           | From permanent funds (income) and rents. | From taxation.    |                   |                      | From all other sources. | Total revenue (excluding balance on hand and proceeds of bond sales). |
|-------------------------------|--|-------------------|-------------------|----------------------|-------------------------|---|
|                               |  | From State taxes. | From local taxes. | Total from taxation. |                         |   |
| 1                             | 2  | 3                 | 4                 | 5                    | 6                       | 7   |
| United States.....            | \$8,336,612                              | \$33,252,941      | \$119,019,984     | \$152,272,925        | \$16,988,154            | \$177,597,691   |
| North Atlantic Division..     | 620,882                                  | 12,532,368        | 44,143,714        | 56,676,082           | 7,413,662               | 64,710,626  |
| South Atlantic Division..     | 441,619                                  | 4,032,340         | 5,435,338         | 9,467,678            | 680,486                 | 10,589,783  |
| South Central Division...     | 1,944,798                                | 6,332,407         | 4,153,512         | 10,485,919           | 666,703                 | 13,097,420  |
| North Central Division...     | 4,589,521                                | 7,618,618         | 58,006,497        | 65,625,115           | 7,099,015               | 77,313,651  |
| Western Division.....         | 739,792                                  | 2,737,208         | 7,280,923         | 10,018,131           | 1,128,288               | 11,886,211  |
| North Atlantic Division:      |  |                   |                   |                      |                         |   |
| Maine.....                    | a 46,040                                 | 516,698           | 1,265,090         | 1,781,788            | 0                       | 1,827,828   |
| New Hampshire (1893-94).....  | 14,753                                   | 86,817            | 729,176           | 815,993              | 60,563                  | 891,709   |
| Vermont.....                  | 48,622                                   | 93,556            | 680,580           | 774,136              | 68,225                  | 890,983   |
| Massachusetts.....            | b 175,944                                | 0                 | 10,469,368        | 10,469,368           | 16,044                  | 10,661,356  |
| Rhode Island.....             | 9,105                                    | 118,834           | 1,163,720         | 1,282,554            | 55,162                  | 1,346,821   |
| Connecticut.....              | 168,870                                  | 255,883           | 1,850,316         | 2,106,199            | 183,205                 | 2,458,274   |
| New York.....                 | 30,312                                   | 3,856,804         | 13,865,890        | 17,722,694           | 3,473,141               | 21,226,147  |
| New Jersey.....               | 127,236                                  | 2,119,460         | 2,261,513         | 4,380,973            | 101,565                 | 4,609,774   |
| Pennsylvania.....             | 0  | 5,484,316         | 11,858,061        | 17,342,377           | 3,455,357               | 20,797,734  |
| South Atlantic Division:      |  |                   |                   |                      |                         |   |
| Delaware (1889-90) a.....     | 60,000                                   | c 6,000           | 209,000           | 215,000              | 0                       | 275,000   |
| Maryland.....                 | 55,323                                   | 583,974           | 1,454,051         | 2,038,025            | 142,255                 | 2,235,603   |
| District of Columbia.....     | 0  | 0                 | 953,155           | 953,155              | 0                       | 953,155   |
| Virginia.....                 | 43,804                                   | 930,548           | 805,025           | 1,735,573            | 44,911                  | 1,824,288   |
| West Virginia.....            | 35,134                                   | 318,506           | 1,089,197         | 1,407,703            | 196,646                 | 1,639,483   |
| North Carolina (1893-94)..... | 0  | 646,543           | 13,323            | 659,866              | 117,213                 | 777,079   |
| South Carolina.....           | 0  | 437,143           | 75,918            | 513,061              | 35,020                  | 548,081   |
| Georgia (1893-94).....        | 212,052                                  | 1,008,752         | 389,702           | 1,398,454            | 64,019                  | 1,674,525   |
| Florida (1893-94).....        | 35,306                                   | 100,874           | 445,967           | 546,841              | 80,422                  | 662,569   |
| South Central Division:       |  |                   |                   |                      |                         |   |
| Kentucky.....                 | 144,817                                  | 1,707,438         | 1,537,854         | 3,245,292            | 0                       | 3,390,109   |
| Tennessee (1893-94).....      | 143,602                                  | 1,252,233         | (d)               | 1,252,233            | 192,442                 | 1,588,277   |
| Alabama (1893-94).....        | 115,887                                  | 513,674           | e 141,861         | 655,535              | 9,531                   | 760,953   |
| Mississippi.....              | 77,946                                   | 923,500           | 176,256           | 1,099,756            | 44,706                  | 1,222,408   |
| Louisiana.....                | 48,385                                   | 213,550           | 582,077           | 795,627              | 232,964                 | 1,076,976   |
| Texas (1893-94).....          | 1,379,361                                | 1,269,679         | 764,464           | 2,034,143            | 181,907                 | 3,595,411   |
| Arkansas.....                 | 34,800                                   | 296,308           | 860,000           | 1,256,308            | 0                       | 1,291,108   |
| Oklahoma (1893-94).....       | 0  | a 56,025          | a 91,000          | 147,025              | 5,153                   | 152,178   |
| North Central Division:       |  |                   |                   |                      |                         |   |
| Ohio.....                     | 251,569                                  | 1,740,228         | 9,682,324         | 11,422,552           | 751,205                 | 12,425,326  |
| Indiana (1893-94).....        | 583,331                                  | 1,915,240         | 3,623,096         | 5,538,336            | 1,797,253               | 7,918,920   |
| Illinois.....                 | 638,905                                  | 1,000,000         | 13,649,780        | 14,649,780           | 623,979                 | 15,912,664  |
| Michigan (1893-94).....       | a 312,000                                | a 702,384         | 4,331,515         | 5,033,899            | 847,080                 | 6,192,979   |
| Wisconsin (1893-94).....      | a 190,000                                | a 584,145         | 3,510,056         | 4,094,201            | 450,612                 | 4,734,813   |
| Minnesota.....                | 418,172                                  | 733,543           | 2,894,850         | 3,628,393            | 578,551                 | 4,625,116   |
| Iowa.....                     | 235,663                                  | 0                 | 7,280,107         | 7,280,107            | 942,978                 | 8,458,748   |
| Missouri.....                 | 838,339                                  | 685,174           | 4,735,498         | 5,420,672            | 66,364                  | 6,325,375   |
| North Dakota (1893-94).....   | 154,126                                  | 152,867           | 630,431           | 783,298              | 53,715                  | 991,139   |
| South Dakota (1893-94).....   | 146,220                                  | 0                 | 1,006,968         | 1,006,968            | 186,669                 | 1,339,857   |
| Nebraska.....                 | 367,029                                  | 105,037           | 2,303,970         | 2,409,007            | 681,033                 | 3,457,069   |
| Kansas.....                   | 454,167                                  | 0                 | 4,357,902         | 4,357,902            | 119,576                 | 4,931,645   |
| Western Division:             |  |                   |                   |                      |                         |   |
| Montana.....                  | 0  | 0                 | 524,789           | 524,789              | 36,616                  | 561,405   |
| Wyoming.....                  | 0  | 0                 | 181,766           | 181,766              | 4,727                   | 186,493   |
| Colorado (1891-92).....       | 108,463                                  | 0                 | 1,462,109         | 1,462,109            | 753,182                 | 2,323,754   |
| New Mexico.....               | 0  | 0                 | 119,673           | 119,673              | 46,126                  | 165,799   |
| Arizona (1893-94).....        | a 5,770                                  | a 156,400         | a 43,400          | a 199,800            | a 41                    | 205,611   |
| Utah.....                     | 0  | 276,195           | 504,304           | 780,499              | 62,096                  | 842,595   |
| Nevada (1893-94).....         | 98,002                                   | 11,941            | 83,770            | 95,711               | 1,080                   | 194,793   |
| Idaho (1893-94).....          | 14,331                                   | 0                 | 303,641           | 303,641              | 2,794                   | 320,766   |
| Washington.....               | 90,278                                   | 0                 | 924,715           | 924,715              | 14,293                  | 1,029,286   |
| Oregon (1893-94).....         | 162,948                                  | 0                 | 744,397           | 744,397              | 140,404                 | 1,047,749   |
| California (1893-94).....     | a 260,000                                | 2,292,672         | 2,388,359         | 4,681,031            | 66,929                  | 5,007,960   |

a Approximately.

b Includes tax on dogs, etc.

c State appropriation for colored schools.

d Not reported; a part is included in "other sources."

e Report incomplete.

TABLE 16.—*The school revenue compared (1) with the adult male population, and (2) with the school population. Percentage analysis of the school revenue.*

| State or Territory.           | Average amount raised per tax-payer. |                   |                   |                         |                                    | Average amount raised for each child 5 to 18 years of age. | Per cent of the whole revenue derived from— |              |              |                    |
|-------------------------------|--------------------------------------|-------------------|-------------------|-------------------------|------------------------------------|--|---|--------------|--------------|--------------------|
|                               | From permanent funds and rents.      | From State taxes. | From local taxes. | From all other sources. | Total amount raised per tax-payer. |  | Permanent funds and rents.                  | State taxes. | Local taxes. | All other sources. |
| 1                             | 2                                    | 3                 | 4                 | 5                       | 6                                  | 7  | 8   | 9            | 10           | 11                 |
| United States.....            | \$0.45                               | \$1.78            | \$6.38            | \$0.91                  | \$9.52                             | \$8.74   | 4.7   | 18.7         | 67.0         | 9.6                |
| North Atlantic Division....   | .11                                  | 2.29              | 8.05              | 1.35                    | 11.80                              | 13.48  | .9  | 19.4         | 68.2         | 11.5               |
| South Atlantic Division....   | .21                                  | 1.88              | 2.53              | .31                     | 4.93                               | 3.50   | 4.2   | 38.1         | 51.3         | 6.4                |
| South Central Division....    | .69                                  | 2.24              | 1.47              | .24                     | 4.64                               | 3.08   | 14.8  | 48.4         | 31.7         | 5.1                |
| North Central Division....    | .68                                  | 1.12              | 8.56              | 1.05                    | 11.41                              | 10.80  | 5.9   | 9.9          | 75.0         | 9.2                |
| Western Division.....         | .52                                  | 1.91              | 5.07              | .78                     | 8.28                               | 13.05  | 6.2   | 23.0         | 61.3         | 9.5                |
| North Atlantic Division:      |                                      |                   |                   |                         |                                    |  |   |              |              |                    |
| Maine.....                    | a .23                                | 2.61              | 6.39              | 0                       | 9.23                               | 11.43  | a 2.5                                       | 28.3         | 69.2         | 0                  |
| New Hampshire (1893-94).....  | .12                                  | .71               | 5.97              | .51                     | 7.31                               | 10.29  | 1.7   | 9.7          | 81.8         | 6.8                |
| Vermont.....                  | .48                                  | .92               | 6.69              | .67                     | 8.76                               | 10.87  | 5.5   | 10.5         | 76.4         | 7.6                |
| Massachusetts.....            | b .24                                | 0                 | 14.25             | .02                     | 14.51                              | 18.85  | b 1.6                                       | 0            | 98.2         | .2                 |
| Rhode Island.....             | .08                                  | 1.02              | 10.01             | .47                     | 11.58                              | 13.75  | .7  | 8.8          | 86.4         | 4.1                |
| Connecticut.....              | .70                                  | 1.07              | 7.71              | .76                     | 10.24                              | 13.06  | 6.9   | 10.4         | 75.3         | 7.4                |
| New York.....                 | .02                                  | 2.05              | 7.35              | 1.84                    | 11.26                              | 13.52  | .1  | 18.2         | 65.3         | 16.4               |
| New Jersey.....               | .27                                  | 4.54              | 4.84              | .22                     | 9.87                               | 10.85  | 2.8   | 46.0         | 49.1         | 2.1                |
| Pennsylvania.....             | 0                                    | 3.39              | 7.32              | 2.13                    | 12.84                              | 12.79  | 0   | 26.4         | 57.0         | 16.6               |
| South Atlantic Division:      |                                      |                   |                   |                         |                                    |  |   |              |              |                    |
| Delaware (1889-90) a.....     | 1.26                                 | e .13             | 4.39              | 0                       | 5.78                               | 5.79   | 21.8  | e 2.2        | 76.0         | 0                  |
| Maryland.....                 | .19                                  | 2.04              | 5.09              | .50                     | 7.82                               | 6.94   | 2.5   | 26.1         | 65.1         | 6.3                |
| District of Columbia.....     | 0                                    | 0                 | 12.59             | 0                       | 12.59                              | 13.88  | 0   | 0            | 100.0        | 0                  |
| Virginia.....                 | .11                                  | 2.41              | 2.08              | .12                     | 4.72                               | 3.16   | 2.4   | 51.0         | 44.1         | 2.5                |
| West Virginia.....            | .18                                  | 1.62              | 5.54              | 1.00                    | 8.54                               | 5.83   | 2.1   | 19.4         | 66.4         | 12.1               |
| North Carolina (1893-94)..... | 0                                    | 1.78              | .04               | .31                     | 2.13                               | 1.28   | 0   | 83.2         | 1.7          | 15.1               |
| South Carolina.....           | 0                                    | 1.73              | .30               | .13                     | 2.16                               | 1.19   | 0   | 79.7         | 13.9         | 6.4                |
| Georgia (1893-94).....        | .50                                  | 2.38              | .92               | .16                     | 3.96                               | 2.41   | 12.7  | 60.2         | 23.3         | 3.8                |
| Florida (1893-94).....        | .32                                  | .90               | 3.99              | .72                     | 5.93                               | 4.39   | 5.3   | 15.2         | 67.2         | 12.3               |
| South Central Division:       |                                      |                   |                   |                         |                                    |  |   |              |              |                    |
| Kentucky.....                 | .30                                  | 3.57              | 3.22              | 0                       | 7.09                               | 5.25   | 4.2   | 50.4         | 45.4         | 0                  |
| Tennessee (1893-94).....      | .35                                  | 3.01              | (d)               | .46                     | 3.82                               | 2.54   | 9.0   | 78.8         | (d)          | 12.2               |
| Alabama (1893-94).....        | .32                                  | 1.40              | e .39             | .03                     | 2.14                               | 1.28   | 14.8  | 65.8         | e 18.2       | 1.2                |
| Mississippi.....              | .26                                  | 3.08              | .59               | .15                     | 4.08                               | 2.84   | 6.4   | 75.5         | 14.4         | 3.7                |
| Louisiana.....                | .18                                  | .77               | 2.11              | .84                     | 3.90                               | 2.56   | 4.5   | 19.8         | 54.0         | 21.7               |
| Texas (1893-94).....          | 2.23                                 | 2.05              | 1.24              | .29                     | 5.81                               | 3.97   | 38.4  | 35.3         | 21.3         | 5.0                |
| Arkansas.....                 | .12                                  | 1.39              | 3.01              | 0                       | 4.52                               | 2.90   | 2.7   | 30.7         | 66.6         | 0                  |
| Oklahoma (1893-94).....       | 0                                    | a .74             | a 1.17            | .09                     | 2.00                               | 2.05   | 0   | a 36.8       | a 59.8       | 2.4                |
| North Central Division:       |                                      |                   |                   |                         |                                    |  |   |              |              |                    |
| Ohio.....                     | .24                                  | 1.66              | 9.24              | .71                     | 11.85                              | 11.56  | 2.0   | 14.0         | 77.9         | 6.1                |
| Indiana (1893-94).....        | .93                                  | 3.06              | 5.81              | 2.88                    | 12.68                              | 11.66  | 7.4   | 24.1         | 45.8         | 22.7               |
| Illinois.....                 | .52                                  | .81               | 11.10             | .51                     | 12.94                              | 12.84  | 4.1   | 6.3          | 85.8         | 3.8                |
| Michigan (1893-94).....       | a .48                                | a 1.07            | 6.60              | 1.28                    | 9.43                               | 10.01  | a 5.0                                       | a 11.3       | 70.0         | 13.7               |
| Wisconsin (1893-94).....      | a .37                                | a 1.13            | 6.77              | .87                     | 9.14                               | 8.37   | a 4.0                                       | a 12.3       | 74.1         | 9.6                |
| Minnesota.....                | .89                                  | 1.56              | 6.16              | 1.23                    | 9.84                               | 9.83   | 9.0   | 15.9         | 62.6         | 12.5               |
| Iowa.....                     | .42                                  | 0                 | 12.96             | 1.68                    | 15.06                              | 13.59  | 2.8   | 0            | 86.1         | 11.1               |
| Missouri.....                 | 1.08                                 | .83               | 6.10              | .09                     | 8.15                               | 6.90   | 13.3  | 10.8         | 74.9         | 1.0                |
| North Dakota (1893-94).....   | 1.87                                 | 1.86              | 7.66              | .65                     | 12.04                              | 13.51  | 15.6  | 15.4         | 63.6         | 5.4                |
| South Dakota (1893-94).....   | 1.24                                 | 0                 | 8.53              | 1.58                    | 11.35                              | 11.40  | 10.9  | 0            | 75.2         | 13.9               |
| Nebraska.....                 | 1.15                                 | .33               | 7.22              | 2.13                    | 10.83                              | 10.23  | 10.6  | 3.0          | 66.7         | 19.7               |
| Kansas.....                   | 1.22                                 | 0                 | 11.67             | .32                     | 13.21                              | 11.22  | 9.2   | 0            | 88.4         | 2.4                |
| Western Division:             |                                      |                   |                   |                         |                                    |  |   |              |              |                    |
| Montana.....                  | 0                                    | 0                 | 5.44              | .38                     | 5.82                               | 15.94  | 0   | 0            | 93.5         | 6.5                |
| Wyoming.....                  | 0                                    | 0                 | 4.29              | .11                     | 4.40                               | 9.19   | 0   | 0            | 97.4         | 2.6                |
| Colorado (1891-92).....       | .59                                  | 0                 | 7.95              | 4.09                    | 12.63                              | 22.98  | 4.7   | 0            | 62.9         | 32.4               |
| New Mexico.....               | 0                                    | 0                 | 2.34              | .90                     | 3.24                               | 3.36   | 0   | 0            | 72.2         | 27.8               |
| Arizona (1893-94).....        | a .19                                | a 5.25            | a 1.46            | 0                       | 6.90                               | 10.79  | a 2.8                                       | a 76.0       | a 21.1       | a .1               |
| Utah.....                     | 0                                    | 3.98              | 7.27              | .89                     | 12.14                              | 9.80   | 0   | 32.8         | 59.9         | 7.3                |
| Nevada (1893-94).....         | 4.98                                 | .61               | 4.25              | .05                     | 9.89                               | 20.70  | 50.3  | 6.1          | 43.0         | .6                 |
| Idaho (1893-94).....          | .33                                  | 0                 | 6.97              | .06                     | 7.36                               | 10.15  | 4.5   | 0            | 94.7         | .8                 |
| Washington.....               | .45                                  | 0                 | 4.63              | .07                     | 5.15                               | 9.53   | 8.8   | 0            | 89.8         | 1.4                |
| Oregon (1893-94).....         | 1.17                                 | 0                 | 5.36              | 1.01                    | 7.54                               | 9.96   | 15.6  | 0            | 71.0         | 13.4               |
| California (1893-94).....     | a .50                                | 4.44              | 4.63              | .13                     | 9.70                               | 15.65  | a 5.2                                       | 45.8         | 47.7         | 1.3                |

a Approximately.

b Includes tax on dogs, etc.

c State appropriation for colored schools.

d Not reported; a part is included in "other sources."

e Report incomplete.

TABLE 17.—*Progress of school expenditure.*

| State or Territory.      | Total amount expended for schools. |                |                 |                 | Expended per capita of population. |          |          |          |
|--------------------------|------------------------------------|----------------|-----------------|-----------------|------------------------------------|----------|----------|----------|
|                          | 1870-71.                           | 1879-80.       | 1889-90.        | 1894-95.        | 1870-71.                           | 1879-80. | 1889-90. | 1894-95. |
| 1                        | 2                                  | 3              | 4               | 5               | 6                                  | 7        | 8        | 9        |
| United States.....       | \$69, 107, 612                     | \$78, 094, 687 | \$140, 506, 715 | \$178, 215, 556 | \$1.75                             | \$1.56   | \$2.24   | \$2.59   |
| North Atlantic Division. | 29, 796, 835                       | 28, 538, 058   | 48, 023, 492    | 62, 825, 072    | 2.38                               | 1.97     | 2.76     | 3.33     |
| South Atlantic Division. | 3, 781, 581                        | 5, 130, 492    | 8, 767, 165     | 10, 618, 900    | .63                                | .68      | .99      | 1.13     |
| South Central Division.  | 4, 854, 834                        | 4, 872, 829    | 10, 678, 680    | 13, 355, 430    | .73                                | .55      | .97      | 1.09     |
| North Central Division.  | 28, 430, 633                       | 35, 285, 635   | 62, 823, 563    | 77, 882, 303    | 2.14                               | 2.03     | 2.81     | 3.19     |
| Western Division.        | 2, 244, 329                        | 4, 267, 673    | 10, 213, 815    | 13, 533, 851    | 2.15                               | 2.41     | 3.37     | 3.61     |
| North Atlantic Division: |                                    |                |                 |                 |                                    |          |          |          |
| Maine.....               | 950, 662                           | 1, 067, 991    | 1, 327, 553     | 1, 819, 050     | 1.51                               | 1.65     | 2.01     | 2.80     |
| New Hampshire.....       | 418, 545                           | 565, 339       | 844, 333        | α 920, 803      | 1.30                               | 1.63     | 2.24     | α 2.37   |
| Vermont.....             | 499, 961                           | 446, 217       | 711, 072        | 975, 258        | 1.51                               | 1.34     | 2.14     | 2.93     |
| Massachusetts.....       | 5, 579, 363                        | 4, 983, 900    | 8, 286, 962     | 10, 661, 356    | 3.73                               | 2.80     | 3.70     | 4.31     |
| Rhode Island.....        | 461, 160                           | 526, 112       | 884, 966        | 1, 363, 084     | 2.05                               | 1.90     | 2.56     | 3.39     |
| Connecticut.....         | 1, 496, 981                        | 1, 498, 375    | 2, 157, 014     | 2, 585, 110     | 2.74                               | 2.26     | 2.89     | 3.23     |
| New York.....            | 9, 607, 904                        | 10, 298, 977   | 17, 543, 880    | 20, 946, 129    | 2.17                               | 2.03     | 2.92     | 3.23     |
| New Jersey.....          | 2, 302, 341                        | 1, 873, 465    | 3, 340, 190     | 4, 551, 631     | 2.48                               | 1.66     | 2.31     | 2.80     |
| Pennsylvania.....        | 8, 479, 918                        | 7, 369, 682    | 12, 928, 422    | 18, 992, 651    | 2.36                               | 1.72     | 2.46     | 3.26     |
| South Atlantic Division: |                                    |                |                 |                 |                                    |          |          |          |
| Delaware.....            | 153, 569                           | 207, 231       | 275, 000        | be 275, 000     | 1.21                               | 1.41     | 1.63     | be 1.63  |
| Maryland.....            | 1, 214, 729                        | 1, 544, 367    | 1, 910, 663     | 2, 315, 550     | 1.53                               | 1.65     | 1.83     | 2.10     |
| District of Columbia.    | 373, 553                           | 438, 567       | 905, 777        | 950, 539        | 2.77                               | 2.47     | 3.93     | 3.51     |
| Virginia.....            | 587, 472                           | 946, 109       | 1, 604, 569     | 1, 807, 592     | .47                                | .63      | .97      | 1.07     |
| West Virginia.....       | 577, 719                           | 707, 553       | 1, 198, 493     | 1, 633, 005     | 1.26                               | 1.14     | 1.57     | 1.97     |
| North Carolina.....      | 177, 498                           | 376, 062       | 714, 900        | α 783, 405      | 1.16                               | 1.27     | .44      | α .46    |
| South Carolina.....      | 275, 688                           | 324, 629       | 450, 936        | 522, 628        | .38                                | .33      | .39      | .42      |
| Georgia.....             | 292, 000                           | 471, 029       | 1, 190, 354     | α 1, 683, 066   | .24                                | .31      | .65      | α .86    |
| Florida.....             | 129, 431                           | 114, 895       | 516, 533        | α 647, 175      | .66                                | .43      | 1.32     | α 1.42   |
| South Central Division:  |                                    |                |                 |                 |                                    |          |          |          |
| Kentucky.....            | 1, 075, 000                        | 1, 000, 030    | 2, 140, 678     | 3, 483, 524     | .80                                | .65      | 1.15     | 1.77     |
| Tennessee.....           | 758, 060                           | 744, 180       | 1, 526, 241     | α 1, 599, 167   | .59                                | .48      | .86      | α .88    |
| Alabama.....             | 370, 000                           | 500, 000       | 890, 000        | α 663, 359      | .36                                | .40      | .59      | α .59    |
| Mississippi.....         | 950, 000                           | 830, 705       | 1, 109, 575     | 1, 272, 560     | 1.11                               | .73      | .86      | .89      |
| Louisiana.....           | 531, 834                           | 411, 858       | 817, 110        | 1, 086, 046     | .71                                | .44      | .73      | .88      |
| Texas.....               | 650, 000                           | 1, 030, 000    | 3, 178, 300     | α 3, 675, 501   | .74                                | .65      | 1.42     | α 1.42   |
| Arkansas.....            | 520, 000                           | 237, 056       | 1, 016, 776     | 1, 291, 168     | 1.02                               | .66      | .90      | 1.03     |
| Oklahoma.....            |                                    |                |                 | 284, 285        |                                    |          |          | 1.07     |
| North Central Division:  |                                    |                |                 |                 |                                    |          |          |          |
| Ohio.....                | 6, 831, 035                        | 7, 166, 963    | 10, 602, 238    | 12, 496, 245    | 2.52                               | 2.24     | 2.89     | 3.20     |
| Indiana.....             | 2, 897, 537                        | 4, 491, 850    | 5, 245, 218     | α 7, 919, 195   | 1.70                               | 2.27     | 2.59     | α 3.44   |
| Illinois.....            | 6, 656, 542                        | 7, 014, 092    | 11, 645, 126    | 15, 866, 202    | 2.57                               | 2.28     | 3.04     | 3.62     |
| Michigan.....            | 2, 840, 740                        | 2, 775, 917    | 5, 349, 366     | α 6, 092, 090   | 2.33                               | 1.70     | 2.55     | α 2.73   |
| Wisconsin.....           | 1, 932, 539                        | 2, 177, 023    | 3, 801, 212     | 5, 533, 224     | 1.70                               | 1.65     | 2.25     | 2.88     |
| Minnesota.....           | 960, 558                           | 1, 328, 429    | 4, 187, 310     | 4, 935, 402     | 2.06                               | 1.70     | 3.22     | 3.04     |
| Iowa.....                | 3, 269, 190                        | 4, 484, 043    | 6, 382, 953     | 7, 799, 944     | 2.70                               | 2.76     | 3.54     | 3.78     |
| Missouri.....            | 1, 749, 049                        | 2, 675, 364    | 5, 434, 262     | 5, 682, 945     | .99                                | 1.23     | 2.03     | 1.93     |
| North Dakota.....        | 23, 003                            | 245, 000       | 626, 949        | α 1, 081, 609   | 1.29                               | 1.81     | 3.43     | α 4.02   |
| South Dakota.....        |                                    |                | 1, 199, 630     | α 1, 687, 918   |                                    |          | 3.65     | α 4.21   |
| Nebraska.....            | 365, 520                           | 1, 108, 617    | 3, 376, 332     | 3, 766, 217     | 2.61                               | 2.45     | 3.19     | 3.36     |
| Kansas.....              | 904, 323                           | 1, 818, 337    | 4, 972, 967     | 5, 022, 712     | 2.24                               | 1.83     | 3.48     | 3.61     |
| Western Division:        |                                    |                |                 |                 |                                    |          |          |          |
| Montana.....             | 35, 600                            | 78, 730        | 364, 684        | 655, 579        | 1.62                               | 2.01     | 2.76     | 3.36     |
| Wyoming.....             | 7, 000                             | 28, 504        | 225, 000        | 189, 600        | .71                                | 1.37     | 3.71     | 1.99     |
| Colorado.....            | 67, 395                            | 395, 227       | 1, 681, 379     | 2, 337, 697     | 1.44                               | 2.03     | 4.08     | 4.49     |
| New Mexico.....          | 4, 900                             | 28, 973        | 85, 000         | 173, 920        | .05                                | .24      | .55      | .69      |
| Arizona.....             | 0                                  | 61, 172        | 181, 914        | α 205, 611      | 0                                  | 1.51     | 3.05     | α 2.74   |
| Utah.....                | 117, 000                           | 132, 194       | 394, 685        | 904, 468        | 1.28                               | .92      | 1.90     | 3.41     |
| Nevada.....              | 85, 000                            | 220, 245       | 161, 481        | α 203, 140      | 1.93                               | 3.54     | 3.53     | α 4.72   |
| Idaho.....               | 19, 003                            | 38, 411        | 169, 020        | α 346, 332      | 1.17                               | 1.18     | 2.00     | α 2.97   |
| Washington.....          | 35, 000                            | 112, 615       | 958, 111        | 1, 170, 401     | 1.30                               | 1.50     | 2.74     | 2.47     |
| Oregon.....              | 160, 000                           | 307, 031       | 805, 979        | α 1, 238, 111   | 1.65                               | 1.76     | 2.57     | α 3.17   |
| California.....          | 1, 713, 431                        | 2, 864, 571    | 5, 187, 162     | 6, 109, 082     | 2.93                               | 3.31     | 4.29     | 4.39     |

a In 1893-94.

b Approximately.

c In 1889-90.



TABLE 18.—*The school expenditure classified.*

| State or Territory.           | For sites,<br>buildings,<br>furniture,<br>libraries, and<br>apparatus. | For salaries<br>of teachers<br>and superin-<br>tendents. | For all other<br>purposes. | Total<br>expenditure<br>(excluding<br>payment of<br>bonds). |
|-------------------------------|--|--|----------------------------|---|
| 1                             | 2  | 3  | 4                          | 5   |
| United States.....            | \$31,900,525   | \$113,664,874  | \$32,650,157               | \$178,215,556   |
| North Atlantic Division.....  | 13,903,856   | 36,374,618   | 12,546,598                 | 62,825,072  |
| South Atlantic Division.....  | 1,075,518  | 8,264,970  | 1,278,412                  | 10,618,900  |
| South Central Division.....   | 1,390,130  | 11,022,650   | 942,650                    | 13,355,430  |
| North Central Division.....   | 13,347,669   | 49,263,338   | 15,271,296                 | 77,882,303  |
| Western Division.....         | 2,183,352  | 8,739,298  | 2,611,201                  | 13,533,851  |
| North Atlantic Division:      |  |  |                            |   |
| Maine.....                    | 252,727  | a 1,010,000  | a 556,323                  | 1,819,050   |
| New Hampshire (1893-94).....  | 163,691  | 622,944  | 134,168                    | 920,803   |
| Vermont.....                  | 108,999  | 595,686  | 270,573                    | 975,253   |
| Massachusetts.....            | 2,217,204  | a 6,529,170  | 1,914,982                  | 10,661,356  |
| Rhode Island.....             | 282,737  | 838,577  | 211,770                    | 1,363,084   |
| Connecticut.....              | 638,059  | 1,666,134  | 280,917                    | 2,585,110   |
| New York.....                 | 5,494,199  | 12,908,835   | 2,543,095                  | 20,946,129  |
| New Jersey.....               | 1,021,681  | 2,898,942  | 641,008                    | 4,561,631   |
| Pennsylvania.....             | 3,724,559  | 9,304,320  | 5,963,762                  | 18,992,651  |
| South Atlantic Division:      |  |  |                            |   |
| Delaware (1889-90) a.....     | b 23,795   | 225,000  | 26,205                     | 275,000   |
| Maryland.....                 | 250,387  | 1,786,786  | 278,577                    | 2,315,550   |
| District of Columbia.....     | 103,534  | 686,875  | 169,139                    | 959,539   |
| Virginia.....                 | 185,199  | 1,434,132  | 188,261                    | 1,807,592   |
| West Virginia.....            | 273,964  | 997,703  | 361,338                    | 1,633,065   |
| North Carolina (1893-94)..... | 53,892   | 634,299  | 95,214                     | 783,465   |
| South Carolina.....           | 22,531   | 451,943  | 49,154                     | 523,628   |
| Georgia (1893-94).....        | 141,883  | 1,514,708  | 26,415                     | 1,683,066   |
| Florida (1893-94).....        | c 20,333   | 533,524  | 93,318                     | 647,175   |
| South Central Division:       |  |  |                            |   |
| Kentucky.....                 | 570,000  | 2,965,524  | 8,000                      | 3,483,524   |
| Tennessee (1893-94).....      | 147,746  | 1,336,625  | 114,736                    | 1,599,107   |
| Alabama (1893-94).....        | c 18,230   | 618,668  | c 26,461                   | 663,359   |
| Mississippi.....              | 37,314   | 1,108,013  | 127,173                    | 1,272,500   |
| Louisiana.....                | 44,460   | 748,608  | d 292,978                  | 1,086,046   |
| Texas (1893-94).....          | 324,041  | 3,028,623  | 322,837                    | 3,675,501   |
| Arkansas.....                 | 135,820  | 1,120,503  | 34,785                     | 1,291,103   |
| Oklahoma.....                 | 112,519  | 156,086  | 15,680                     | 284,285   |
| North Central Division:       |  |  |                            |   |
| Ohio.....                     | 1,359,957  | 8,299,070  | 2,837,218                  | 12,496,245  |
| Indiana (1893-94).....        | 1,556,551  | 4,747,428  | 1,615,216                  | 7,919,195   |
| Illinois.....                 | 5,163,249  | 9,465,289  | 1,292,264                  | 15,866,802  |
| Michigan (1893-94).....       | 735,503  | 3,889,083  | 1,467,504                  | 6,092,090   |
| Wisconsin.....                | 775,145  | 3,900,302  | 857,777                    | 5,533,221   |
| Minnesota.....                | 997,325  | 3,084,461  | 854,616                    | 4,936,402   |
| Iowa.....                     | 736,720  | 5,075,492  | 1,984,732                  | 7,796,944   |
| Missouri.....                 | 593,825  | 4,063,616  | 1,020,504                  | 5,682,945   |
| North Dakota (1893-94).....   | 260,042  | 510,582  | 310,985                    | 1,081,609   |
| South Dakota (1893-94).....   | 184,900  | 914,046  | 588,972                    | 1,687,918   |
| Nebraska.....                 | 785,993  | 2,435,343  | 543,881                    | 3,765,217   |
| Kansas.....                   | e 186,459  | 2,938,626  | 1,897,627                  | 5,022,712   |
| Western Division:             |  |  |                            |   |
| Montana.....                  | 138,724  | 376,522  | 140,333                    | 655,579   |
| Wyoming.....                  | 15,000   | 148,800  | 25,800                     | 189,600   |
| Colorado.....                 | 383,810  | 1,262,091  | 691,706                    | 2,337,607   |
| New Mexico.....               | 20,642   | 128,782  | 24,496                     | 173,920   |
| Arizona (1893-94).....        | a 41,100   | a 130,900  | a 33,611                   | 205,611   |
| Utah.....                     | 259,404  | 458,311  | 180,753                    | 904,468   |
| Nevada (1893-94).....         | 9,939  | 100,797  | 32,404                     | 203,140   |
| Idaho (1893-94).....          | 63,485   | 204,041  | 78,896                     | 346,332   |
| Washington.....               | 154,112  | 638,329  | 377,990                    | 1,170,401   |
| Oregon (1893-94).....         | 288,403  | 825,043  | 124,665                    | 1,238,111   |
| California.....               | 898,733  | 4,405,682  | 894,667                    | 6,199,082   |

a Approximately.

b City of Wilmington only.

c Report incomplete.

d Includes payment of bonded indebtedness.

e Expenditure for furniture, libraries, and apparatus included in column 4.



TABLE 19.—(1) *Expenditure per pupil (based on average attendance)*; (2) *average daily expenditure per pupil*; (3) *percentage analysis of expenditure.*

| State or Territory.         | Average expenditure per pupil<br>(for the whole school year). |                       |                                    |                        | Expenditure<br>per pupil per<br>day. |                | Percentage of total ex-<br>penditure devoted to— |                 |                                |
|-----------------------------|---|-----------------------|------------------------------------|------------------------|--------------------------------------|----------------|--|-----------------|--------------------------------|
|                             | For<br>sites,<br>build-<br>ings,<br>etc.                      | For<br>sala-<br>ries. | For all<br>other<br>pur-<br>poses. | Total<br>per<br>pupil. | For<br>salaries<br>only.             | Total.         | Sites,<br>build-<br>ings,<br>etc.                | Sala-<br>ries.  | All<br>other<br>pur-<br>poses. |
| 1                           | 2   | 3                     | 4                                  | 5                      | 6                                    | 7              | 8  | 9               | 10                             |
| United States .....         | \$3.40  | \$12.11               | \$3.47                             | \$18.98                | Cents.<br>8.6                        | Cents.<br>13.4 | Per ct.<br>17.9                                  | Per ct.<br>63.8 | Per ct.<br>18.3                |
| North Atlantic Division ..  | 5.94  | 15.54                 | 5.36                               | 26.84                  | 9.0                                  | 15.5           | 22.1   | 57.9            | 20.0                           |
| South Atlantic Division ..  | .87   | 6.68                  | 1.04                               | 8.59                   | 6.3                                  | 8.1            | 10.1   | 77.8            | 12.1                           |
| South Central Division ..   | .80   | 6.35                  | .54                                | 7.69                   | 6.4                                  | 7.7            | 10.4   | 82.5            | 7.1                            |
| North Central Division ..   | 3.70  | 13.66                 | 4.24                               | 21.60                  | 8.9                                  | 14.1           | 17.1   | 63.3            | 19.6                           |
| Western Division .....      | 4.66  | 18.67                 | 5.58                               | 28.91                  | 13.1                                 | 20.3           | 16.1   | 64.6            | 19.3                           |
| North Atlantic Division:    |   |                       |                                    |                        |                                      |                |  |                 |                                |
| Maine .....                 | 2.64  | a 10.54               | a 5.80                             | 18.98                  | a 7.9                                | 14.3           | 13.9   | a 55.5          | a 30.6                         |
| New Hampshire (1893-94) ..  | 3.90  | 14.83                 | 3.19                               | 21.92                  | 11.4                                 | 16.8           | 17.8   | 67.7            | 14.5                           |
| Vermont .....               | 2.55  | 13.94                 | 6.33                               | 22.82                  | 9.3                                  | 15.2           | 11.2   | 61.1            | 27.7                           |
| Massachusetts .....         | 7.07  | a 20.81               | 6.10                               | 33.98                  | a 11.2                               | 18.3           | 20.8   | a 61.2          | 18.0                           |
| Rhode Island .....          | 6.89  | 20.42                 | 5.89                               | 33.20                  | 10.6                                 | 17.2           | 20.7   | 61.5            | 17.8                           |
| Connecticut .....           | 6.63  | 17.32                 | 2.92                               | 26.87                  | 9.4                                  | 14.7           | 24.7   | 64.4            | 10.9                           |
| New York .....              | 7.25  | 17.04                 | 3.36                               | 27.65                  | 9.2                                  | 15.0           | 26.2   | 61.6            | 12.2                           |
| New Jersey .....            | 5.93  | 16.81                 | 3.72                               | 26.46                  | 8.4                                  | 13.2           | 22.4   | 63.5            | 14.1                           |
| Pennsylvania .....          | 4.78  | 11.94                 | 7.65                               | 24.37                  | 7.5                                  | 15.4           | 19.6   | 49.0            | 31.4                           |
| South Atlantic Division:    |   |                       |                                    |                        |                                      |                |  |                 |                                |
| Delaware (1889-90) a ..     | b 1.21  | 11.45                 | 1.33                               | 13.99                  | 6.9                                  | 8.3            | b 8.7  | 81.8            | 9.5                            |
| Maryland .....              | 2.06  | 14.70                 | 2.28                               | 19.04                  | 7.9                                  | 10.2           | 10.8   | 77.2            | 12.0                           |
| District of Columbia ..     | 3.06  | 20.30                 | 4.73                               | 28.09                  | 12.2                                 | 16.9           | 10.9   | 72.3            | 16.8                           |
| Virginia .....              | .91   | 7.08                  | .93                                | 8.92                   | 6.0                                  | 7.5            | 10.2   | 79.3            | 10.5                           |
| West Virginia .....         | 1.95  | 7.10                  | 2.57                               | 11.62                  | 7.0                                  | 11.5           | 16.8   | 61.1            | 22.1                           |
| North Carolina (1893-94) .. | .23   | 2.75                  | .42                                | 3.40                   | 4.4                                  | 5.4            | 6.9  | 81.0            | 12.1                           |
| South Carolina .....        | .14   | 2.84                  | .31                                | 3.29                   | 4.1                                  | 4.7            | 4.3  | 86.5            | 9.2                            |
| Georgia (1893-94) .....     | .54   | 5.78                  | .10                                | 6.42                   | 5.2                                  | 5.8            | 8.4  | 90.0            | 1.6                            |
| Florida (1893-94) .....     | c .32   | 8.32                  | 1.45                               | 10.09                  | 8.5                                  | 10.4           | c 3.1  | 82.4            | 14.5                           |
| South Central Division:     |   |                       |                                    |                        |                                      |                |  |                 |                                |
| Kentucky .....              | 2.09  | 10.66                 | .03                                | 12.78                  | 9.3                                  | 11.1           | 16.4   | 83.4            | .2                             |
| Tennessee (1893-94) ..      | .43   | 3.89                  | .33                                | 4.65                   | 4.2                                  | 5.0            | 9.2  | 83.6            | 7.2                            |
| Alabama (1893-94) ..        | c 1.10  | 3.34                  | c 1.4                              | 3.58                   | 4.6                                  | 4.9            | c 2.7  | 93.3            | c 4.0                          |
| Mississippi .....           | .18   | 5.47                  | .63                                | 6.28                   | 5.4                                  | 6.2            | 2.9  | 87.1            | 10.0                           |
| Louisiana .....             | .41   | 6.84                  | d 2.68                             | 9.93                   | 6.5                                  | 9.4            | 4.1  | 68.9            | d 27.0                         |
| Texas (1893-94) .....       | .77   | 7.24                  | .78                                | 8.79                   | 7.2                                  | 8.8            | 8.8  | 82.4            | 8.8                            |
| Arkansas .....              | .78   | 6.40                  | .20                                | 7.38                   | 5.5                                  | 6.4            | 10.5   | 86.8            | 2.7                            |
| Oklahoma .....              | 3.73  | 5.17                  | .51                                | 9.41                   | 7.0                                  | 12.7           | 39.6   | 54.9            | 5.5                            |
| North Central Division:     |   |                       |                                    |                        |                                      |                |  |                 |                                |
| Ohio .....                  | 2.29  | 13.99                 | 4.78                               | 21.06                  | 8.5                                  | 12.8           | 10.9   | 66.4            | 22.7                           |
| Indiana (1893-94) .....     | 3.96  | 12.09                 | 4.11                               | 20.16                  | 8.5                                  | 14.2           | 19.7   | 60.0            | 20.3                           |
| Illinois .....              | 8.27  | 15.05                 | 2.08                               | 25.40                  | 9.2                                  | 15.6           | 32.6   | 59.3            | 8.1                            |
| Michigan (1893-94) ..       | 2.33  | 12.32                 | 4.65                               | 19.30                  | 7.9                                  | 12.4           | 12.1   | 63.8            | 24.1                           |
| Wisconsin .....             | 2.97  | 14.95                 | 3.28                               | 21.20                  | 9.3                                  | 13.2           | 14.0   | 70.5            | 15.5                           |
| Minnesota .....             | 6.05  | 18.73                 | 5.19                               | 29.97                  | 12.1                                 | 19.4           | 20.2   | 62.5            | 17.3                           |
| Iowa .....                  | 2.17  | 14.96                 | 5.85                               | 22.98                  | 9.4                                  | 14.4           | 9.4  | 65.1            | 25.5                           |
| Missouri .....              | 1.49  | 9.53                  | 2.39                               | 13.32                  | 7.3                                  | 10.2           | 10.5   | 71.5            | 18.0                           |
| North Dakota (1893-94) ..   | 8.05  | 15.81                 | 9.62                               | 33.48                  | 13.2                                 | 27.9           | 24.0   | 47.2            | 28.8                           |
| South Dakota (1893-94) ..   | 3.40  | 16.80                 | 10.83                              | 31.03                  | 16.1                                 | 29.8           | 11.0   | 54.1            | 34.9                           |
| Nebraska .....              | 4.53  | 14.17                 | 3.16                               | 21.91                  | 9.6                                  | 14.8           | 20.9   | 64.7            | 14.4                           |
| Kansas .....                | e .72   | 11.58                 | 7.36                               | 19.46                  | 9.1                                  | 15.5           | e 3.7  | 58.5            | 37.8                           |
| Western Division:           |   |                       |                                    |                        |                                      |                |  |                 |                                |
| Montana .....               | 7.69  | 20.86                 | 7.77                               | 36.32                  | 14.1                                 | 24.6           | 21.2   | 57.4            | 21.4                           |
| Wyoming .....               | 2.12  | 21.04                 | 3.64                               | 26.80                  | 14.9                                 | 19.0           | 7.9  | 78.5            | 13.6                           |
| Colorado .....              | 6.31  | 20.74                 | 11.37                              | 38.42                  | 13.8                                 | 25.6           | 16.4   | 54.0            | 29.6                           |
| New Mexico .....            | 1.29  | 8.07                  | 1.53                               | 10.89                  | 9.3                                  | 12.5           | 11.9   | 74.0            | 14.1                           |
| Arizona (1893-94) ..        | a 5.94  | a 18.91               | a 4.86                             | 29.71                  | a 15.3                               | 24.0           | a 20.0   | a 63.7          | a 16.3                         |
| Utah .....                  | 6.47  | 11.43                 | 4.66                               | 22.56                  | 7.7                                  | 15.2           | 28.7   | 50.7            | 20.6                           |
| Nevada (1893-94) ..         | 1.97  | 31.86                 | 6.42                               | 40.25                  | 21.2                                 | 26.8           | 4.9  | 79.2            | 15.9                           |
| Idaho (1893-94) .....       | 3.96  | 12.73                 | 4.92                               | 21.61                  | 11.6                                 | 19.7           | 18.3   | 58.9            | 22.8                           |
| Washington .....            | 2.50  | 10.35                 | 6.13                               | 18.98                  | 10.8                                 | 19.9           | 13.2   | 54.5            | 32.3                           |
| Oregon (1893-94) ..         | 4.89  | 13.99                 | 2.11                               | 20.99                  | 12.8                                 | 19.3           | 23.3   | 66.6            | 10.1                           |
| California .....            | 4.54  | 24.74                 | 5.02                               | 34.33                  | 14.2                                 | 19.7           | 13.2   | 72.1            | 14.7                           |

a Approximately.

b City of Wilmington only.

c Report incomplete.

d Includes payment of bonded indebtedness.

e Expenditure for furniture, libraries, and apparatus included in "all other purposes."

TABLE 20.—(1) *School expenditure per capita of population; (2) same per capita of average attendance.*

| Year.        | Expended per capita of population. |                          |                          |                         |                         |                   | Expended per pupil. |                          |                          |                         |                         |                   |
|--------------|------------------------------------|--------------------------|--------------------------|-------------------------|-------------------------|-------------------|---------------------|--------------------------|--------------------------|-------------------------|-------------------------|-------------------|
|              | United States.                     | North Atlantic Division. | South Atlantic Division. | South Central Division. | North Central Division. | Western Division. | United States.      | North Atlantic Division. | South Atlantic Division. | South Central Division. | North Central Division. | Western Division. |
| 1870-71..... | \$1.75                             | \$2.38                   | \$0.63                   | \$0.73                  | \$2.14                  | \$2.15            | \$15.20             | \$18.31                  | \$10.27                  | \$9.06                  | \$14.87                 | \$21.87           |
| 1871-72..... | 1.83                               | 2.40                     | .68                      | .81                     | 2.31                    | 2.27              | 15.93               | 18.86                    | 10.46                    | 9.08                    | 16.36                   | 23.57             |
| 1872-73..... | 1.84                               | 2.44                     | .68                      | .74                     | 2.31                    | 2.42              | 16.06               | 19.89                    | 9.25                     | 8.39                    | 16.53                   | 25.04             |
| 1873-74..... | 1.88                               | 2.51                     | .76                      | .68                     | 2.38                    | 2.40              | 15.85               | 19.89                    | 9.01                     | 7.55                    | 16.57                   | 24.36             |
| 1874-75..... | 1.91                               | 2.55                     | .80                      | .73                     | 2.36                    | 2.76              | 15.91               | 20.17                    | 8.98                     | 7.51                    | 16.69                   | 26.85             |
| 1875-76..... | 1.85                               | 2.45                     | .79                      | .55                     | 2.37                    | 2.78              | 15.70               | 19.14                    | 8.65                     | 6.70                    | 16.91                   | 26.35             |
| 1876-77..... | 1.72                               | 2.29                     | .72                      | .51                     | 2.21                    | 2.61              | 14.64               | 17.89                    | 7.68                     | 6.25                    | 15.93                   | 24.69             |
| 1877-78..... | 1.67                               | 2.15                     | .70                      | .56                     | 2.14                    | 2.73              | 13.67               | 16.55                    | 7.21                     | 5.98                    | 15.08                   | 25.82             |
| 1878-79..... | 1.56                               | 2.03                     | .63                      | .53                     | 2.00                    | 2.53              | 12.97               | 16.05                    | 6.76                     | 5.65                    | 14.22                   | 23.29             |
| 1879-80..... | 1.56                               | 1.97                     | .68                      | .55                     | 2.03                    | 2.41              | 12.71               | 15.64                    | 6.60                     | 5.40                    | 14.39                   | 22.59             |
| 1880-81..... | 1.63                               | 2.08                     | .72                      | .53                     | 2.09                    | 2.54              | 13.61               | 17.14                    | 7.22                     | 5.72                    | 15.19                   | 23.81             |
| 1881-82..... | 1.70                               | 2.11                     | .78                      | .64                     | 2.19                    | 2.59              | 14.05               | 17.35                    | 7.63                     | 6.25                    | 15.79                   | 24.32             |
| 1882-83..... | 1.80                               | 2.22                     | .82                      | .68                     | 2.34                    | 2.74              | 14.55               | 18.17                    | 7.46                     | 6.17                    | 16.69                   | 25.39             |
| 1883-84..... | 1.88                               | 2.25                     | .84                      | .74                     | 2.48                    | 2.83              | 14.63               | 18.37                    | 7.44                     | 6.26                    | 16.90                   | 24.69             |
| 1884-85..... | 1.96                               | 2.38                     | .88                      | .82                     | 2.53                    | 2.90              | 15.12               | 19.19                    | 7.32                     | 6.74                    | 17.53                   | 26.31             |
| 1885-86..... | 1.97                               | 2.36                     | .88                      | .87                     | 2.54                    | 2.88              | 15.06               | 19.11                    | 7.33                     | 6.93                    | 17.45                   | 25.52             |
| 1886-87..... | 1.97                               | 2.35                     | .90                      | .87                     | 2.55                    | 2.76              | 15.07               | 19.38                    | 7.33                     | 6.88                    | 17.45                   | 24.85             |
| 1887-88..... | 2.07                               | 2.48                     | .95                      | .87                     | 2.68                    | 2.96              | 15.71               | 20.60                    | 7.61                     | 6.60                    | 18.29                   | 27.38             |
| 1888-89..... | 2.17                               | 2.59                     | .98                      | .94                     | 2.76                    | 3.28              | 16.55               | 21.64                    | 7.77                     | 7.12                    | 19.30                   | 29.37             |
| 1889-90..... | 2.24                               | 2.76                     | .99                      | .97                     | 2.81                    | 3.37              | 17.23               | 23.58                    | 7.78                     | 7.28                    | 19.70                   | 30.57             |
| 1890-91..... | 2.31                               | 2.79                     | 1.06                     | 1.04                    | 2.85                    | 3.78              | 17.54               | 23.66                    | 8.52                     | 7.78                    | 19.42                   | 33.42             |
| 1891-92..... | 2.40                               | 2.94                     | 1.07                     | 1.06                    | 2.94                    | 4.03              | 18.20               | 24.89                    | 8.74                     | 7.82                    | 20.13                   | 33.55             |
| 1892-93..... | 2.48                               | 3.04                     | 1.10                     | 1.06                    | 3.07                    | 3.97              | 18.58               | 25.91                    | 8.65                     | 7.72                    | 20.62                   | 33.57             |
| 1893-94..... | 2.51                               | 3.17                     | 1.12                     | 1.08                    | 3.10                    | 3.53              | 18.55               | 26.44                    | 8.60                     | 7.63                    | 20.91                   | 29.09             |
| 1894-95..... | 2.59                               | 3.33                     | 1.13                     | 1.09                    | 3.19                    | 3.61              | 18.98               | 26.84                    | 8.59                     | 7.69                    | 21.60                   | 28.91             |



# PART I.

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# PART I.

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## CHAPTER I.

### CITY SCHOOL SYSTEMS.

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The single constant factor observable in the statistics of city schools is progressive increase in numbers. It is fitting, therefore, that an examination be made into the facts and conditions of growth of the cities themselves in order to arrive at a clear understanding of the growth of the schools.

Beginning with five cities of 8,000 inhabitants, with an aggregate population of 108,750 in 1790, there has been an increase at every census, both in the total urban population and in the number of cities, until at the last census, in 1890, there were reported 448 cities, with 18,284,385 inhabitants. In 1790 the cities comprised 2.77 per cent of the whole population of the country; in 1890 that ratio had grown to 29.20 per cent.<sup>1</sup>

The conclusion to be drawn from this is undoubtedly that we are becoming as a nation less and less agricultural and more given to those diversified occupations for the pursuit of which the conditions presented by cities are necessary concomitants.

This change in the general character of the population is not peculiar to America, but is noticeable in even a greater degree in Europe, where in some cases, as in Scotland, the change amounts almost to a social revolution.

The prime cause for this extensive modification of social conditions is due in general to the unprecedented advance made in the last century in the invention and use of machinery, by which productive power has been enormously increased. This operates both to lessen the population of the country and to increase that of the city. By the use of improved labor-saving machinery one man may to-day cultivate more land and raise larger crops than were possible to ten men a century ago, when most of the work of the farm was done by hand. Even to-day, in some parts of the country where the conditions are still some-

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<sup>1</sup> See footnote on page 9.

what primitive, the standard allowance is a mule and two hands to 60 acres. But, as Edward Atkinson has shown, on the great farms of North Dakota, where machinery is used to the greatest possible extent, the labor of one man is equivalent to the care of 260 acres. Even here we have the difference between 30 and 260 acres per man.

The same agency, machinery, at the same time that it has lessened the number of men required for a given amount of farm work, has provided for the surplus laborers by transferring to the city many of the former occupations of the farm; the manufacture of implements, spinning, weaving, and the like were formerly the work of the farmer and his family. But with the use of improved tools, which are not available to the farmer, and with the help of the steam engine these things may now be done in the city so much more cheaply and expeditiously that the farmer finds it to his interest to confine himself almost wholly to the cultivation of the soil and the production of the raw material, and to buy manufactured products from the town. Thus it happens that not only is labor highly specialized and manufacturing divorced from agriculture, but the importance and volume of trade and transportation are vastly augmented. Other changes in this general direction conduce to the concentration of people in the cities, in which nearly all occupations not directly concerned with the production of raw material may be pursued more conveniently and advantageously than in the sparsely settled rural communities.

The aggregation of people in close contact with each other in itself gives rise to new needs that must be met by the establishment of other industries, giving employment to still more people, who must also live in the cities. The same density of population makes possible greater combinations for education, business, or amusement than would be practicable in the country. The graded school, the daily newspaper, the library, the theater, the opera, and many other agencies that add to the pleasure of living and to the cultivation of the mind attain their highest development in the city, and some of them can exist nowhere else. Such attractions lure men to the communities in which they exist and indirectly lead to the multiplication of industries, for men unable to find a place in those already existing invent new ones in order to be near the attractions they desire, and by presenting novelties create a demand for them. Thus cities increase of their own momentum, and in their development grow from mere appendages to surrounding agricultural regions into great centers of dominating influence.

The agricultural districts, in turn, feel the reaction from the growth of the cities. The demand for provisions is greater, because there are more people who must buy them. Machinery has reduced the cost of manufactured articles; they are used more freely and in greater quantities, so that the market for raw material is extended. It follows, then, since more of farm products are required, that there is not usually any decrease in the number of people in the country surround-

ing the cities, though there may be, and in fact usually is, a great change among individuals. But such is the facility of transportation from one part of the world to another that if the territory contiguous to a city is not favorable to agriculture because of poverty of soil, adverse climate, or other reasons, it is not able to compete even in the production of raw materials with localities more favored by nature even though the latter may be far removed from the market. This is true of Scotland and of some parts of New England, where there has been an actual decrease in rural population.

These general statements apply to the United States as to all the rest of the civilized world. But in addition there are other causes that have produced the remarkable extension of city influences in this country.

It was formerly the policy of England to use her colonies merely as feeders to the mother country, and to encourage their prosperity only so far as it added to the immediate welfare of England and for that purpose only. Manufactures which would compete with home manufactures were forbidden, and commerce, except that conducted by means of English ships, was prohibited. This hampering of colonial industries began as early as 1651 with the navigation act, and continued to the Revolution, to which it was one of the contributing causes.

Under the influence of such a policy, agriculture was practically the only industry freely open to the American colonists. The people were widely scattered and the cities insignificant, even when compared to the small population, for many of those city functions which should have been performed by American cities were reserved for the cities of England. There were only 32,328 people in New York in 1790, and 28,522 in Philadelphia, the largest cities in the country. Boston had 18,038 inhabitants, Charleston 16,359, and Baltimore 13,503. These were the only places worthy the name of cities according to the accepted definition of the term, for the next in size, Salem, Mass., had only 7,921.

Almost immediately after the removal of the baleful influence of the English colonial policy the cities began to develop, and their first impetus may be ascribed primarily to the proper assumption of functions clearly their own. New York speedily became a city of importance, and in thirty years had quadrupled in size. Philadelphia, Boston, and Charleston grew less rapidly, but Baltimore's growth was proportionally as great as that of New York. Villages became cities, and in 1820 there were ten more cities than in 1790.

It is to be remembered that even at the present time this country is in its formative stage. The conditions under which the industries must finally be pursued are still unsettled in many parts of the country, for the pursuits characteristic of whole States are those of a pioneer people. To be sure, this is less true now than at any previous period, for with increasing development come more settled conditions. But a



sufficient portion of our territory remains unoccupied, or only partially settled, to justify as true to-day, though in a less degree, the statements that may be made as to conditions of progress in the past, and vice versa. The following therefore may be taken as a type of the growth of American cities.

Agriculture is usually the only industry open to the first permanent settlers in a new country. The difficulties of obtaining supplies and the impossibility of profitable manufacture or trade when the population is sparse compel the settler to rely upon his own exertions in tilling the soil for the simple necessities of life. He therefore chooses for his home the place promising the richest return for his labor. The most desirable lands are thus first occupied, then the less desirable. Later comes the store for the exchange of products and the sale of articles not produced on the farm. Then simple mechanical industries, as a blacksmith shop, a mill, or a wagon shop, are established; a church and school are built, a post-office opened, and a village is begun. If the community is prosperous the village speedily grows. New stores are added, a weekly newspaper begun, more churches are built, and other industries are started. Under favorable conditions, such as proximity to a navigable river or railroad, and especially if at the junction of two or more transportation lines, the growth is all the more sure and steady. If the conditions for manufacturing are also especially favorable, further development into a city is reasonably certain. The first articles manufactured are generally those required in the immediate neighborhood, but gradually the field is broadened and goods are sold in distant communities less favorably situated for the manufacture of those particular articles, special facilities in transportation making a desirable center of distribution, and proximity to mines or to great forests equally insuring development.

But the growth of the cities is not at the expense of the country surrounding them, for it is at first the result of the growth and needs of that country. Their subsequent growth, resulting from the extensive use of machinery and from their own momentum, as previously described, does no injury to the country but rather aids it. Many of the best and most energetic of those from the country are drawn into the city, but a balance in numbers, though not necessarily in character, is struck by others who go from the city to the country, or who come from other sections and from foreign countries.

The city absorbs an undue share of foreign immigration, and its population grows proportionally much faster than that of the country, because comparatively few persons are needed for farm work, and, as a rule, that number is all but supplied when the building of the city is scarcely begun. Still newer countries and fresher lands are open to those who desire to begin anew as farmers, and in these days of rapid transportation and cheap freights distance from city markets is of small account as compared with cheaper and more fertile lands, except in a

limited class of products, such as vegetables and the like, which must be sold immediately.

This illustrates the growth typical of American cities. The country is dotted over with communities in all the various stages of development, and each year a considerable number of them attain the size and importance sufficient to justify them in being considered as cities in all discussion of urban questions. It is to these new cities to a large extent that the wonderful urban growth shown by the censuses is due. Even before they could be ranked as cities they were in existence as villages, or centers of varying degrees of importance, and contained the germs of the future cities.

To determine the relative growth of these communities and of the country at large it would be necessary to compare the relative importance of the communities as they now exist with their relative importance at any past period with which the comparison is desired. But since we wish to consider cities only, this comparison would not be desirable, for it would require us to consider in the past period many communities, which, though cities *in posse*, were not yet cities in any true sense. A better comparison which has the same significance is between those which might properly be called cities at the former period and the same cities at the latter period.

This means simply tracing the growth for a stated time of all cities in the United States that have been cities during all that time.

The question is not whether the average character of the population is changing, but as to whether cities, after they become cities, grow at a rate disproportionate to the growth of the country at large.

The growth of new cities does not affect the propriety of the comparison, because they do not in general alter the relative importance of the older cities. The old cities in general assume new functions and become centers of the new centers. Their influence remains predominant in financial, commercial, and even in social affairs.

The table below was constructed to present comparisons of the cities of four periods, namely, 1790, 1820, 1840, and 1850, with the same cities as they exist to-day. The census of 1790 was the first taken after the adoption of the Constitution; that of 1820 was sufficiently removed to show the tendencies of independence, as opposed to those of colonial dependence, in regard to the matter in hand; that of 1840 marks the half century between the first and the last census, and that of 1850 was the first taken after the territorial acquisition of 1848, which made the United States what it is at present, if Alaska be excepted. As the table shows, the 5 cities which in 1790 had in their limits 2.77 per cent of the whole population of the country, in 1890 had 5.59 per cent of the same. Their relative importance had doubled. By 1820 there had been sufficient time for the cities to come into their own just inheritance; the 15 cities at that date comprised 4.73 per cent of the population; in 1890 the same 15 cities had 7.39 per cent of the population.

They had increased in importance by 56 per cent; their growth was over one-half greater than that of the entire country.

Similarly, in 1840 there were 53 cities whose population was 8.73 per cent of the whole; in 1890 it was 13.10 per cent, a relative increase of almost exactly 50 per cent. In this case the urban growth was just one-half more, relatively, than that of the whole United States. The proportion is less in the comparison of the 91 cities of 1850 with the same cities of 1890, for at the earlier date 12.58 per cent of the population was in those cities, while at the later period the proportion was 17.51 per cent; relatively, they had grown two-fifths more than the entire country.

If we put the same statements in another form, it appears that the 5 cities which have existed as cities for one hundred years have in that time increased 100 per cent in relative importance as judged by population; the 15 cities that have existed as such for seventy years or more have in the last seventy years increased 56 per cent in relative importance; those (53) which have been cities for fifty years or more have in the last fifty years grown relatively 50 per cent; and those (91) which have existed as cities for forty years or more have increased in relative importance by 40 per cent in the last forty years.

The coincidences in these figures are striking. With the exception of the comparison based on 1820, the percentages are the same as the number of years included in the comparison. This would seem to indicate that the annual rate of growth of cities is greater by 1 per cent per annum than the corresponding rate of growth of the nation, and that the excess increases in arithmetical ratio instead of geometrical ratio. This, however, is probably not strictly true; the several ratios mentioned are not properly comparable with each other, since they represent different sets of cities. But naturally the true ratio would lie not far from that shown by the calculation presented.

TABLE 1.—*Cities of 8,000 inhabitants or more in 1790, 1820, 1840, and 1850, with population of same cities in 1890. (a)*

| City.                     | Population of cities having 8,000 or more inhabitants— |          |          |          | Population in 1890 of cities mentioned in preceding columns. |
|---------------------------|--|----------|----------|----------|--|
|                           | In 1790.   | In 1820. | In 1840. | In 1850. |  |
| 1                         | 2  | 3        | 4        | 5        | 6  |
| Mobile, Ala. ....         |  |          | 12,672   | 20,515   | 31,076   |
| Montgomery, Ala. ....     |  |          |          | 8,728    | 21,883   |
| Hartford, Conn. ....      |  |          | 9,408    | 13,555   | 53,230   |
| New Haven, Conn. ....     |  |          | 12,960   | 20,345   | 81,298   |
| New London, Conn. ....    |  |          |          | 8,990    | 13,757   |
| Norwich, Conn. ....       |  |          |          | 10,265   | 16,156   |
| Wilmington, Del. ....     |  |          | 8,367    | 13,979   | 61,431   |
| Washington, D. C. ....    |  | 13,247   | 23,364   | 40,000   | } 230,392  |
| Georgetown, D. C. ....    |  |          |          | 8,366    |  |
| Augusta, Ga. ....         |  |          |          | 11,753   | 33,300   |
| Savannah, Ga. ....        |  |          | 11,214   | 15,312   | 43,189   |
| Chicago, Ill. ....        |  |          |          | 29,963   | 1,099,850  |
| Indianapolis, Ind. ....   |  |          |          | 8,091    | 105,436  |
| Madison, Ind. ....        |  |          |          | 8,012    | 8,936  |
| New Albany, Ind. ....     |  |          |          | 8,181    | 21,059   |
| Covington, Ky. ....       |  |          |          | 9,408    | 37,371   |
| Louisville, Ky. ....      |  |          | 21,210   | 43,194   | 161,129  |
| New Orleans, La. ....     | (b)  | 27,176   | 102,193  | 116,375  | 242,039  |
| Augusta, Me. ....         |  |          |          | 8,170    | 10,527   |
| Bangor, Me. ....          |  |          | 8,627    | 14,400   | 19,103   |
| Portland, Me. ....        |  |          | 15,218   | 20,815   | 36,425   |
| Baltimore, Md. ....       | 13,503   | 62,738   | 102,313  | 169,054  | 434,439  |
| Boston, Mass. ....        | 18,038   | 43,298   | 93,383   | 136,881  | } 448,477  |
| Charlestown, Mass. ....   |  |          | 11,484   | 17,010   |  |
| Roxbury, Mass. ....       |  |          | 9,089    | 18,364   |  |
| Cambridge, Mass. ....     |  |          | 8,409    | 15,074   | 70,028   |
| Chicopee, Mass. ....      |  |          |          | 8,284    | 14,050   |
| Fall River, Mass. ....    |  |          |          | 11,524   | 74,398   |
| Lowell, Mass. ....        |  |          | 20,796   | 33,328   | 77,696   |
| Lynn, Mass. ....          |  |          | 9,367    | 14,257   | 55,727   |
| New Bedford, Mass. ....   |  |          | 12,057   | 16,443   | 40,733   |
| Newburyport, Mass. ....   |  |          |          | 9,572    | 13,947   |
| Salem, Mass. ....         |  |          | 15,082   | 20,264   | 30,801   |
| Springfield, Mass. ....   |  |          | 10,985   | 11,495   | 44,179   |
| Taunton, Mass. ....       |  |          |          | 10,411   | 25,448   |
| Worcester, Mass. ....     |  |          |          | 17,049   | 84,655   |
| Detroit, Mich. ....       |  |          | 9,102    | 21,061   | 205,876  |
| St. Louis, Mo. ....       |  |          | 16,469   | 77,860   | 451,776  |
| Concord, N. H. ....       |  |          |          | 8,550    | 17,004   |
| Dover, N. H. ....         |  |          |          | 8,160    | 12,790   |
| Manchester, N. H. ....    |  |          |          | 13,885   | 41,126   |
| Portsmouth, N. H. ....    |  |          |          | 9,688    | 9,827  |
| Camden, N. J. ....        |  |          |          | 9,479    | 58,313   |
| Newark, N. J. ....        |  |          | 17,290   | 38,894   | 181,830  |
| New Brunswick, N. J. .... |  |          |          | 10,019   | 18,603   |
| Paterson, N. J. ....      |  |          |          | 11,334   | 78,347   |
| Albany, N. Y. ....        |  | 12,630   | 33,721   | 50,763   | 94,923   |
| Auburn, N. Y. ....        |  |          |          | 9,548    | 25,858   |
| Brooklyn, N. Y. ....      |  |          | 36,233   | 96,838   | } 806,343  |
| Williamsburg, N. Y. ....  |  |          |          | 30,780   |  |
| Buffalo, N. Y. ....       |  |          | 18,213   | 42,261   | 255,664  |
| Elmira, N. Y. ....        |  |          |          | 8,166    | 30,893   |
| Fishkill, N. Y. ....      |  |          | 10,437   | 9,240    | 3,617  |
| Kingston, N. Y. ....      |  |          |          | 10,232   | 21,261   |
| Lockport, N. Y. ....      |  |          | 9,125    | 12,323   | 16,038   |
| Newburg, N. Y. ....       |  |          | 8,933    | 11,415   | 23,087   |
| New York, N. Y. ....      | 32,323   | 123,706  | 312,710  | 515,547  | 1,515,301  |

a The figures in the totals do not correspond, except for 1890, with those of similar kind presented in the publications of the Eleventh Census. (See Compendium, Part I, population, pp. lxxi-lxxiii.) The cities here given and their populations were obtained after a careful examination of original publications of the censuses quoted, in connection with later documents which are supposed to have corrected the errors of the old publications. The causes for the differences may be readily found by examination of the original documents. The following are examples: The 6 "cities of over 8,000 inhabitants" reported by the Eleventh Census to exist in 1790, included Salem, Mass., whose population was 7,921; the population reported for Philadelphia included the "suburbs" outside the corporate limits of the city; that for New York included Harlem. The census reports only 13 cities in 1820, omitting Northern Liberties and Southwark, Pa. St. Louis is reported to have had 10,049 inhabitants in 1820; this is erroneous, for St. Louis was then only a straggling village. The population given was that of St. Louis County. The census figures for the year 1890 are accepted without investigation. They are original sources of information, whereas the figures of any other census which might appear in that of 1890 are secondary only, and may properly be verified.

b Not in the United States until 1803.



TABLE 1.—*Cities of 8,000 inhabitants or more in 1790, 1820, 1840, and 1850, etc.—Cont'd.*

| City.   | Population of cities having 8,000 or more inhabitants— |             |              |              | Popula-<br>tion in 1890<br>of cities<br>mentioned<br>in preced-<br>ing col-<br>umns. |
|---|--|-------------|--------------|--------------|--|
|   | In 1790.   | In 1820.    | In 1840.     | In 1850.     |  |
| 1   | 2  | 3           | 4            | 5            | 6  |
| Oswego, N. Y.....   |  |             |              | 12, 205      | 21, 842  |
| Poughkeepsie, N. Y.....   |  |             | 10, 006      | 15, 944      | 22, 206  |
| Rochester, N. Y.....  |  |             | 20, 191      | 36, 403      | 133, 896   |
| Schenectady, N. Y.....  |  |             |              | 8, 921       | 19, 902  |
| Syracuse, N. Y.....   |  |             | 11, 013      | 22, 271      | 88, 143  |
| Troy, N. Y.....   |  |             | 19, 354      | 28, 785      | 60, 956  |
| Utica, N. Y.....  |  |             | 12, 782      | 17, 565      | 44, 007  |
| Cincinnati, Ohio.....   |  | 9, 642      | 46, 338      | 115, 435     | 296, 908   |
| Cleveland, Ohio.....  |  |             |              | 17, 034      | 261, 353   |
| Columbus, Ohio.....   |  |             |              | 17, 882      | 88, 150  |
| Dayton, Ohio.....   |  |             |              | 10, 977      | 61, 220  |
| Allegheny, Pa.....  |  |             | 10, 069      | 21, 262      | 105, 287   |
| Lancaster, Pa.....  |  |             | 8, 417       | 12, 369      | 32, 011  |
| Philadelphia, Pa.....   | 28, 522  | 63, 802     | 93, 665      | 121, 376     | 1, 046, 964  |
| Kensington, Pa.....   |  |             | 22, 314      | 46, 774      |  |
| Moyamensing, Pa.....  |  |             | 14, 573      | 26, 979      |  |
| Northern Liberties, Pa.....   |  | 19, 678     | 34, 474      | 47, 223      |  |
| Southwark, Pa.....  |  | 14, 713     | 27, 548      | 38, 799      |  |
| Spring Garden, Pa.....  |  |             | 27, 849      | 58, 894      |  |
| Pittsburg, Pa.....  |  |             | 21, 115      | 46, 601      | 238, 617   |
| Reading, Pa.....  |  |             | 8, 410       | 15, 743      | 58, 661  |
| Newport, R. I.....  |  |             | 8, 333       | 9, 563       | 19, 457  |
| Providence, R. I.....   |  | 11, 767     | 23, 171      | 41, 513      | 132, 146   |
| Charleston, S. C.....   | 16, 359  | 24, 780     | 29, 261      | 42, 985      | 54, 955  |
| Memphis, Tenn.....  |  |             |              | 8, 841       | 64, 495  |
| Nashville, Tenn.....  |  |             |              | 10, 165      | 76, 168  |
| Alexandria, Va.....   |  | 8, 218      | 8, 459       | 8, 734       | 14, 339  |
| Lynchburg, Va.....  |  |             |              | 8, 071       | 19, 709  |
| Norfolk, Va.....  |  | 8, 478      | 10, 920      | 14, 326      | 34, 871  |
| Petersburg, Va.....   |  |             | 11, 136      | 14, 010      | 22, 680  |
| Portsmouth, Va.....   |  |             |              | 8, 122       | 13, 268  |
| Richmond, Va.....   |  | 12, 067     | 20, 153      | 27, 570      | 81, 388  |
| Wheeling, W. Va.....  |  |             |              | 11, 435      | 34, 522  |
| Milwaukee, Wis.....   |  |             |              | 20, 061      | 204, 468   |
| Total.....  | 108, 750   | 455, 940    | 1, 490, 072  | 2, 916, 339  | 10, 966, 225   |
| Population of United States at the same<br>time.....                                | 3, 929, 214  | 9, 633, 822 | 17, 069, 453 | 23, 191, 876 | 62, 622, 250   |
| Total population in 1890 of same cities for<br>which population is given above..... | 3, 500, 136  | 4, 627, 142 | 8, 293, 333  | 10, 966, 225 | .....  |

From the discussions of the preceding pages the meaning of the summaries in the following tables may be more readily understood.

It is intended to present each year the school statistics of all the cities in the United States that have over 8,000 inhabitants, with the summaries of the same. This first involves the preparation of a list of such cities—an easy task if the population of each is known. But that is the case only once in every ten years, when the United States census is taken. It would be obviously wrong to use the same list for ten years, because, as we have already seen, constant additions are being made to the number of cities. It is necessary, therefore, to constantly revise the list, and in this Bureau this is done whenever evidence appears to indicate the need of revision. School statistics are gathered from all communities of over 4,000 inhabitants, and when the reports from any community show that the schools have grown beyond the point which might be expected to be reached by a place having less than 8,000, further inquiry is made into the conditions of

growth of the place, noting especially the ratio between its population and its school enrollment in 1890, and if the result of the investigation justifies it the name of the community is at once transferred to the list of cities and its statistics tabulated in that category.

Naturally, the number of additions made each year to the list is not uniform and the rate of increase in the same statistical item varies considerably from one year to another, as the tables for the several years show. It is, therefore, not practicable to institute comparisons between different years on the basis of the figures presented. But since all the cities are represented in the totals, either by accurate figures or by estimates believed to be reliable, it is perfectly safe to compare the several items for the same year; or the ratios resulting from such comparisons may be compared with similar ratios for another year. For example, the reported enrollment for 1893-94 was greater than that for 1892-93 by 8.68 per cent, while the reported enrollment for 1894-95 was only 5.56 per cent more than that for 1893-94; the corresponding increase between 1891-92 to 1892-93 was 4.86 per cent. Actually there was no such difference in the rate of increase; the variation was caused by the fact that in one year (1892-93) the facilities for investigating the growth of cities were greater than before. More cities than usual were added to the list, and consequently the apparent increase was greater than usual. All this indicates nothing more than a difference in the collection of statistics.

The average of these yearly rates of increase in a general way approximates the true rate of increase, but not with sufficient accuracy for precise comparisons. These are possible only in census years, and then for ten-year periods only.

But in 1892-93 the ratio of average attendance to enrollment was 71.9 per cent; in 1893-94 it was 72.9 per cent, and in 1894-95, 73.6 per cent. These quantities are properly comparable, for even though the number of cities represented be different, the ratios developed are presumably not affected by that difference. The attendance was undoubtedly more regular in 1893-94 than in 1892-93, and still more regular in 1894-5. Similar comparisons may be made between other ratios in the same way.

Then the enrollment in public schools increased from 1893-94 to 1894-95 by 5.56 per cent, and under the same statistical conditions the private and parochial schools increased by 2.72 per cent. These items are comparable, and the inference is that the public schools have grown more rapidly than the private schools.

Table 2 is designed to present opportunity for comparisons of the kind last described; Table 5 for comparisons of the previous kind.

TABLE 2.—*Summary of statistics of school systems of cities containing over 8,000 inhabitants, showing increase or decrease from previous year.*

[NOTE.—No correct list of cities of a given population can be made in other than census years. The percentages of increase shown below, therefore, are relative only and are intended to be used for no other purpose than comparison with each other.]

**Enrollment:**

|                            |             |
|----------------------------|-------------|
| 1893-94 .....              | 3, 126, 659 |
| 1894-95 .....              | 3, 302, 841 |
| Increase .....             | 176, 182    |
| Per cent of increase ..... | 5. 56       |

**Aggregate number of days' attendance of pupils:**

|                            |               |
|----------------------------|---------------|
| 1893-94 .....              | 436, 806, 735 |
| 1894-95 .....              | 462, 450, 038 |
| Increase .....             | 25, 643, 303  |
| Per cent of increase ..... | 5. 88         |

**Average daily attendance:**

|                            |             |
|----------------------------|-------------|
| 1893-94 .....              | 2, 281, 237 |
| 1894-95 .....              | 2, 431, 967 |
| Increase .....             | 150, 730    |
| Per cent of increase ..... | 6. 61       |

**Average length (in days) of school term:**

|                |        |
|----------------|--------|
| 1893-94 .....  | 191. 5 |
| 1894-95 .....  | 190. 1 |
| Decrease ..... | 1. 4   |

**Enrollment in private schools (estimated):**

|                            |          |
|----------------------------|----------|
| 1893-94 .....              | 820, 250 |
| 1894-95 .....              | 842, 555 |
| Increase .....             | 22, 305  |
| Per cent of increase ..... | 2. 72    |

**Number of supervising officers:**

|                            |        |
|----------------------------|--------|
| 1893-94 .....              | 3, 374 |
| 1894-95 .....              | 3, 685 |
| Increase .....             | 311    |
| Per cent of increase ..... | 9. 21  |

**Number of teachers:**

|                            |         |
|----------------------------|---------|
| 1893-94 .....              | 62, 999 |
| 1894-95 .....              | 66, 993 |
| Increase .....             | 3, 994  |
| Per cent of increase ..... | 6. 34   |

## Number of buildings:

|                            |        |
|----------------------------|--------|
| 1893-94 .....              | 7, 743 |
| 1894-95 .....              | 8, 106 |
| <hr/>                      |        |
| Increase .....             | 363    |
| Per cent of increase ..... | 4. 69  |
| <hr/>                      |        |

## Number of sittings or seats:

|                            |             |
|----------------------------|-------------|
| 1893-94 .....              | 2, 898, 295 |
| 1894-95 .....              | 3, 119, 277 |
| <hr/>                      |             |
| Increase .....             | 220, 982    |
| Per cent of increase ..... | 7. 62       |
| <hr/>                      |             |

## Value of school property:

|                            |                 |
|----------------------------|-----------------|
| 1893-94 .....              | \$228, 439, 334 |
| 1894-95 .....              | 236, 846, 394   |
| <hr/>                      |                 |
| Increase .....             | 8, 407, 060     |
| Per cent of increase ..... | 3. 68           |
| <hr/>                      |                 |

## Expenditure for teaching and supervision:

|                            |                |
|----------------------------|----------------|
| 1893-94 .....              | \$40, 717, 650 |
| 1894-95 .....              | 44, 155, 706   |
| <hr/>                      |                |
| Increase .....             | 3, 438, 056    |
| Per cent of increase ..... | 8. 44          |
| <hr/>                      |                |

## Expenditure for all purposes excepting loans and bonds:

|                            |                |
|----------------------------|----------------|
| 1893-94 .....              | \$69, 886, 413 |
| 1894-95 .....              | 74, 721, 332   |
| <hr/>                      |                |
| Increase .....             | 4, 834, 919    |
| Per cent of increase ..... | 6. 93          |
| <hr/>                      |                |



TABLE 3.—*Summary, by States, of enrollment, attendance, supervising officers, and teachers in cities containing over 8,000 inhabitants. (a)*

| Cities of—                 | Number of school systems. | Enrollment in public day schools. | Aggregate number of days' attendance of all pupils. | Average daily attendance. | Enrollment in private and parochial schools (estimated). | Number of supervising officers. | Number of teachers. |         |        |
|----------------------------|---------------------------|-----------------------------------|---|---------------------------|--|---------------------------------|---------------------|---------|--------|
|                            |                           |                                   |   |                           |  |                                 | Male.               | Female. | Total. |
| United States .....        | 574                       | 3,302,841                         | 462,450,038   | 2,431,967                 | 842,555  | 3,685                           | 5,023               | 61,971  | 66,993 |
| North Atlantic Division... | 221                       | 1,561,959                         | 221,016,405   | 1,134,394                 | 385,022  | 1,586                           | 2,048               | 29,553  | 31,601 |
| South Atlantic Division... | 43                        | 239,274                           | 31,973,121  | 173,593                   | 51,946   | 183                             | 590                 | 4,336   | 4,925  |
| South Central Division...  | 51                        | 181,464                           | 22,808,432  | 126,260                   | 42,113   | 248                             | 379                 | 3,130   | 3,509  |
| North Central Division...  | 224                       | 1,137,872                         | 161,785,375   | 864,235                   | 333,215  | 1,427                           | 1,670               | 21,719  | 23,389 |
| Western Division .....     | 35                        | 182,271                           | 24,866,705  | 133,485                   | 30,259   | 241                             | 336                 | 3,233   | 3,569  |
| North Atlantic Division:   |                           |                                   |   |                           |  |                                 |                     |         |        |
| Maine .....                | 9                         | 21,702                            | 2,960,083   | 16,843                    | 5,039  | 29                              | 40                  | 535     | 575    |
| New Hampshire .....        | 6                         | 14,105                            | 1,869,609   | 10,635                    | 6,875  | 14                              | 29                  | 325     | 354    |
| Vermont .....              | 2                         | 3,838                             | 476,527   | 2,630                     | 1,975  | 5                               | 6                   | 87      | 93     |
| Massachusetts .....        | 48                        | 286,545                           | 44,047,277  | 226,341                   | 51,701   | 209                             | 550                 | 5,820   | 6,370  |
| Rhode Island .....         | 7                         | 42,376                            | 5,322,502   | 27,523                    | 8,777  | 24                              | 73                  | 861     | 934    |
| Connecticut .....          | 17                        | 70,403                            | 10,086,431  | 51,940                    | 14,357   | 122                             | 121                 | 1,445   | 1,566  |
| New York .....             | 60                        | 614,546                           | 86,224,597  | 440,037                   | 171,290  | 748                             | 577                 | 11,439  | 12,016 |
| New Jersey .....           | 22                        | 135,538                           | 18,223,468  | 91,586                    | 37,283   | 178                             | 96                  | 2,367   | 2,463  |
| Pennsylvania .....         | 50                        | 372,906                           | 51,805,911  | 266,850                   | 87,725   | 257                             | 556                 | 6,674   | 7,230  |
| South Atlantic Division:   |                           |                                   |   |                           |  |                                 |                     |         |        |
| Delaware .....             | 1                         | 9,764                             | 1,434,328   | 7,318                     | .....  | 3                               | 5                   | 202     | 207    |
| Maryland .....             | 4                         | 78,200                            | 10,473,452  | 52,662                    | 18,112   | 9                               | 151                 | 1,507   | 1,658  |
| District of Columbia ..    | 2                         | 41,557                            | 5,747,413   | 31,349                    | 5,395  | 47                              | 116                 | 842     | 958    |
| Virginia .....             | 10                        | 32,324                            | 4,262,416   | 24,258                    | 8,633  | 30                              | 81                  | 506     | 587    |
| West Virginia .....        | 3                         | 9,965                             | 1,267,257   | 7,178                     | 1,400  | 12                              | 15                  | 198     | 213    |
| North Carolina .....       | 6                         | .....                             | .....   | .....                     | .....  | .....                           | .....               | .....   | .....  |
| South Carolina .....       | 4                         | 9,384                             | 1,428,611   | 7,981                     | 2,340  | 19                              | 18                  | 151     | 169    |
| Georgia .....              | 9                         | 36,355                            | 5,047,104   | 28,196                    | 7,974  | 50                              | 129                 | 547     | 676    |
| Florida .....              | 4                         | 10,164                            | 833,128   | 6,571                     | 3,800  | 4                               | 47                  | 181     | 228    |
| South Central Division:    |                           |                                   |   |                           |  |                                 |                     |         |        |
| Kentucky .....             | 12                        | 48,165                            | 6,919,128   | 35,178                    | 13,190   | 57                              | 85                  | 901     | 986    |
| Tennessee .....            | 6                         | 28,287                            | 3,760,880   | 20,507                    | 4,614  | 57                              | 62                  | 407     | 469    |
| Alabama .....              | 6                         | 11,996                            | 1,609,742   | 9,397                     | 2,543  | 12                              | 35                  | 207     | 242    |
| Mississippi .....          | 5                         | 8,186                             | 1,039,320   | 5,774                     | 2,510  | 16                              | 14                  | 159     | 173    |
| Louisiana .....            | 3                         | .....                             | .....   | .....                     | .....  | .....                           | .....               | .....   | .....  |
| Texas .....                | 14                        | 43,482                            | 4,975,737   | 30,104                    | 8,416  | 46                              | 133                 | 675     | 808    |
| Arkansas .....             | 4                         | 11,467                            | 1,359,225   | 7,720                     | 1,650  | 6                               | 21                  | 161     | 182    |
| Oklahoma .....             | 1                         | * 1,301                           | * 113,200   | * 740                     | 150  | 1                               | 3                   | 22      | 25     |
| Indian Territory .....     | 0                         | 0                                 | 0   | 0                         | 0  | 0                               | 0                   | 0       | 0      |
| North Central Division:    |                           |                                   |   |                           |  |                                 |                     |         |        |
| Ohio .....                 | 45                        | 222,134                           | 33,431,193  | 177,401                   | 73,897   | 233                             | 423                 | 4,351   | 4,774  |
| Indiana .....              | 29                        | 97,447                            | 13,222,060  | 72,263                    | 22,167   | 109                             | 230                 | 1,743   | 1,973  |
| Illinois .....             | 35                        | 285,678                           | 42,175,251  | 219,622                   | 98,555   | 368                             | 297                 | 5,510   | 5,807  |
| Michigan .....             | 29                        | 117,114                           | 16,752,881  | 86,919                    | 35,385   | 152                             | 122                 | 2,262   | 2,384  |
| Wisconsin .....            | 20                        | 82,610                            | 11,456,992  | 62,198                    | 32,394   | 111                             | 122                 | 1,560   | 1,682  |
| Minnesota .....            | 8                         | 68,219                            | 9,822,581   | 52,291                    | 18,090   | 128                             | 58                  | 1,332   | 1,390  |
| Iowa .....                 | 21                        | 63,498                            | 8,867,552   | 48,589                    | 10,673   | 100                             | 67                  | 1,378   | 1,445  |
| Missouri .....             | 13                        | 119,881                           | 15,715,447  | 86,150                    | 32,512   | 138                             | 207                 | 2,189   | 2,396  |
| North Dakota .....         | 0                         | 0                                 | 0   | 0                         | 0  | 0                               | 0                   | 0       | 0      |
| South Dakota .....         | 1                         | 1,905                             | 263,888   | 1,575                     | 125  | 2                               | 3                   | 41      | 44     |
| Nebraska .....             | 10                        | 38,007                            | 4,889,603   | 27,262                    | 3,488  | 48                              | 50                  | 700     | 750    |
| Kansas .....               | 13                        | 41,979                            | 5,187,327   | 29,965                    | 5,929  | 38                              | 91                  | 653     | 744    |
| Western Division:          |                           |                                   |   |                           |  |                                 |                     |         |        |
| Montana .....              | 3                         | 7,276                             | 895,619   | 5,269                     | 815  | 5                               | 19                  | 139     | 158    |
| Wyoming .....              | 1                         | 1,147                             | 133,210   | 770                       | 100  | 3                               | 0                   | 28      | 28     |
| Colorado .....             | 8                         | 30,428                            | 3,833,528   | 21,072                    | 3,465  | 49                              | 41                  | 511     | 552    |
| New Mexico .....           | 0                         | 0                                 | 0   | 0                         | 0  | 0                               | 0                   | 0       | 0      |
| Arizona .....              | 0                         | 0                                 | 0   | 0                         | 0  | 0                               | 0                   | 0       | 0      |
| Utah .....                 | 2                         | 15,543                            | 2,063,383   | 11,380                    | 650  | 25                              | 46                  | 254     | 300    |
| Nevada .....               | 1                         | 881                               | 147,492   | 723                       | 100  | 1                               | 2                   | 18      | 20     |
| Idaho .....                | 0                         | 0                                 | 0   | 0                         | 0  | 0                               | 0                   | 0       | 0      |
| Washington .....           | 4                         | 17,181                            | 2,260,529   | 12,987                    | 2,145  | 20                              | 25                  | 321     | 346    |
| Oregon .....               | 2                         | 12,325                            | 1,823,967   | 9,723                     | 1,400  | 12                              | 27                  | 224     | 251    |
| California .....           | 14                        | 97,491                            | 13,708,977  | 71,561                    | 21,584   | 126                             | 176                 | 1,758   | 1,914  |

*a* In the preparation of this table omissions and deficiencies in the returns of individual cities were supplied from the best sources available. If no accurate information could be had in any particular case, an estimate based upon ratios developed in the other cities of the same State was used, unless it appeared that the conditions were essentially different in the city for which precise data were lacking.

Blanks indicate that the number of cities which reported the item was not sufficient to justify an estimate to supply the deficiency.

\* Statistics of 1893-94.

TABLE 4.—*Summary, by States, of school property and expenditures in cities containing over 8,000 inhabitants. (a)*

| Cities of—                    | Number of build-ings. | Number of seats or sittings for study. | Value of all public prop-erty used for school purposes | Expendi-ture for supervision and teach-ing. | Expendi-ture for all purposes except loans and bonds. |
|-------------------------------|-----------------------|--|--|---|---|
| United States .....           | 8, 106                | 3, 119, 277                            | \$236, 846, 394  | \$44, 155, 766                              | \$74, 721, 332  |
| North Atlantic Division ..... | 3, 779                | 1, 438, 671                            | 116, 128, 291  | 20, 919, 163                                | 36, 495, 063  |
| South Atlantic Division ..... | 594                   | 221, 787                               | 10, 469, 464   | 2, 756, 147                                 | 3, 790, 529   |
| South Central Division .....  | 470                   | 164, 096                               | 9, 462, 543  | 2, 110, 907                                 | 2, 965, 790   |
| North Central Division .....  | 2, 774                | 1, 130, 988                            | 82, 979, 343   | 15, 321, 915                                | 26, 615, 629  |
| Western Division .....        | 489                   | 163, 735                               | 17, 806, 753   | 3, 047, 574                                 | 4, 824, 321   |
| North Atlantic Division:      |                       |  |  |   |   |
| Maine .....                   | 198                   | 24, 186                                | 1, 397, 482  | 250, 840                                    | 405, 061  |
| New Hampshire .....           | 90                    | 12, 750                                | 1, 755, 000  | 194, 187                                    | 386, 712  |
| Vermont .....                 | 22                    | 3, 603                                 | 341, 200   | 46, 434                                     | 101, 969  |
| Massachusetts .....           | 1, 159                | 282, 624                               | 27, 795, 774   | 4, 558, 240                                 | 7, 630, 227   |
| Rhode Island .....            | 175                   | 39, 014                                | 3, 250, 838  | 594, 647                                    | 1, 064, 785   |
| Connecticut .....             | 239                   | 63, 506                                | 5, 783, 299  | 964, 712                                    | 1, 614, 692   |
| New York .....                | 816                   | 559, 190                               | 42, 357, 546   | 8, 362, 847                                 | 14, 464, 894  |
| New Jersey .....              | 239                   | 113, 198                               | 6, 798, 977  | 1, 577, 898                                 | 2, 384, 151   |
| Pennsylvania .....            | 841                   | 340, 600                               | 20, 648, 175   | 4, 369, 358                                 | 8, 442, 572   |
| South Atlantic Division:      |                       |  |  |   |   |
| Delaware .....                | 27                    | 10, 076                                | * 622, 797   | 102, 347                                    | 165, 282  |
| Maryland .....                | 140                   | 75, 370                                | 2, 688, 158  | 929, 317                                    | 1, 322, 042   |
| District of Columbia .....    | 102                   | 35, 500                                | 3, 260, 027  | 686, 875                                    | 950, 540  |
| Virginia .....                | 71                    | 28, 292                                | 999, 650   | 281, 912                                    | 363, 670  |
| West Virginia .....           | 23                    | 9, 054                                 | 595, 825   | 102, 134                                    | 157, 142  |
| North Carolina .....          |                       |  |  |   |   |
| South Carolina .....          | 15                    | 8, 463                                 | 228, 500   | 82, 757                                     | 90, 171   |
| Georgia .....                 | 82                    | 34, 188                                | 1, 398, 280  | 387, 126                                    | 501, 067  |
| Florida .....                 | 108                   | 10, 050                                | 163, 227   | 73, 091                                     | 88, 515   |
| South Central Division:       |                       |  |  |   |   |
| Kentucky .....                | 100                   | 50, 411                                | 2, 391, 123  | 640, 843                                    | 829, 763  |
| Tennessee .....               | 51                    | 24, 178                                | 1, 309, 548  | 296, 701                                    | 359, 491  |
| Alabama .....                 | 32                    | 11, 288                                | 623, 000   | 150, 297                                    | 223, 560  |
| Mississippi .....             | 18                    | 8, 990                                 | 341, 000   | 69, 894                                     | 86, 806   |
| Louisiana .....               |                       |  |  |   |   |
| Texas .....                   | 126                   | 36, 768                                | 2, 752, 422  | 490, 484                                    | 669, 300  |
| Arkansas .....                | 35                    | 9, 831                                 | 732, 450   | 110, 267                                    | 157, 274  |
| Oklahoma .....                | 7                     | 1, 200                                 | 50, 000  | 11, 280                                     | * 23, 943   |
| Indian Territory .....        | 0                     | 0                                      | 0  | 0   | 0   |
| North Central Division:       |                       |  |  |   |   |
| Ohio .....                    | 544                   | 232, 884                               | 18, 135, 702   | 3, 106, 117                                 | 5, 281, 413   |
| Indiana .....                 | 262                   | 104, 255                               | 6, 377, 969  | 1, 087, 071                                 | 1, 843, 540   |
| Illinois .....                | 525                   | 301, 187                               | 21, 434, 998   | 4, 481, 778                                 | 8, 228, 213   |
| Michigan .....                | 326                   | 105, 323                               | 7, 284, 917  | 1, 344, 677                                 | 2, 503, 640   |
| Wisconsin .....               | 221                   | 81, 470                                | 3, 871, 105  | 1, 033, 418                                 | 1, 551, 796   |
| Minnesota .....               | 158                   | 62, 648                                | 7, 143, 314  | 1, 057, 784                                 | 1, 769, 648   |
| Iowa .....                    | 214                   | 60, 129                                | 4, 899, 975  | 811, 814                                    | 1, 365, 204   |
| Missouri .....                | 258                   | 110, 444                               | 7, 400, 438  | 1, 514, 494                                 | 2, 740, 061   |
| North Dakota .....            | 0                     | 0                                      | 0  | 0   | 0   |
| South Dakota .....            | 10                    | 1, 800                                 | 150, 000   | 26, 323                                     | 40, 319   |
| Nebraska .....                | 122                   | 34, 060                                | 3, 057, 225  | 493, 592                                    | 758, 772  |
| Kansas .....                  | 134                   | 36, 788                                | 2, 223, 700  | 364, 847                                    | 563, 023  |
| Western Division:             |                       |  |  |   |   |
| Montana .....                 | 29                    | 7, 500                                 | 652, 574   | 125, 406                                    | 194, 742  |
| Wyoming .....                 | 5                     | 1, 000                                 | 134, 641   | 23, 462                                     | 30, 074   |
| Colorado .....                | 84                    | 26, 501                                | 4, 135, 000  | 482, 610                                    | 998, 339  |
| New Mexico .....              | 0                     | 0                                      | 0  | 0   | 0   |
| Arizona .....                 | 0                     | 0                                      | 0  | 0   | 0   |
| Utah .....                    | 42                    | 14, 530                                | 1, 265, 382  | 181, 527                                    | 424, 486  |
| Nevada .....                  | 4                     | 886                                    | 52, 180  | 16, 600                                     | .....   |
| Idaho .....                   | 0                     | 0                                      | 0  | 0   | 0   |
| Washington .....              | 47                    | 18, 332                                | 2, 012, 760  | 251, 901                                    | 407, 343  |
| Oregon .....                  | 37                    | 10, 946                                | 914, 386   | 218, 735                                    | 309, 334  |
| California .....              | 241                   | 84, 040                                | 8, 639, 830  | 1, 747, 333                                 | 2, 433, 933   |

*a* In the preparation of this table omissions and deficiencies in the returns of individual cities were supplied from the best sources available. If no accurate information could be had in any particular case, an estimate based upon ratios developed in other cities of the same State was used, unless it appeared that the conditions were essentially different in the city for which precise data were lacking.

Blanks indicate that the number of cities which reported the item was not sufficient to justify an estimate to supply the deficiency.

\* Statistics of 1892-94.

TABLE 5.—Comparative statistics of cities containing over 3,000 inhabitants, summarized by States, etc.

| Cities of—               | 1   |   |  |                                |   |   |   |   |  |   |   |  |   |  |
|--------------------------|---|---|--|--------------------------------|---|---|---|---|--|---|---|--|---|--|
|                          | Ratio of private school-enrollment to total public and private school-enrollment. | Ratio of average attendance to total enrollment (public schools). | Average number of days of attendance of each pupil enrolled. | Average length of school term. | Average number of pupils in attendance to each teacher. | Average number of teachers to each supervising officer. | Average number of seats for 100 pupils in attendance. | Average number of seats or sitings to a building. | Value of school property per capita of pupils in attendance. | Cost of tuition (i. e., supervision and teaching) per capita of pupils in attendance. | Total cost of schools per capita of pupils in attendance. | Average cost per day of tuition for one pupil. | Average daily expenditure per pupil for all purposes. |  |
|                          | 2   | 3   | 4  | 5                              | 6   | 7   | 8   | 9   | 10   | 11  | 12  | 13   | 14  |  |
| United States:           |   |   |  |                                |   |   |   |   |  |   |   |  |   |  |
| 1891-92.....             | 21.5  | 72.1  | 137.9  | 191.5                          | 35.9  | 20.2  | 126.5   | 371   | \$97.92  | \$16.83   | \$28.80   | 8.79   | 15.04   |  |
| 1892-93.....             | 21.2  | 71.9  | 137.0  | 190.6                          | 35.3  | 20.2  | 130.3   | 387   | 99.32  | 18.29   | 31.92   | 9.00   | 16.75   |  |
| 1893-94.....             | 20.8  | 72.9  | 139.7  | 191.5                          | 36.2  | 18.7  | 127.1   | 374   | 100.15   | 17.85   | 30.64   | 9.32   | 16.00   |  |
| 1894-95.....             | 20.3  | 73.6  | 140.0  | 190.1                          | 36.3  | 18.2  | 128.3   | 385   | 97.39  | 18.16   | 30.72   | 9.55   | 16.16   |  |
| North Atlantic Division: |   |   |  |                                |   |   |   |   |  |   |   |  |   |  |
| 1891-92.....             | 21.0  | 71.1  | 138.5  | 194.7                          | 35.0  | 21.5  | 128.5   | 383   | 102.25   | 18.23   | 31.63   | 9.37   | 16.24   |  |
| 1892-93.....             | 20.7  | 71.2  | 138.0  | 193.7                          | 34.5  | 20.6  | 131.2   | 388   | 105.15   | 18.45   | 32.28   | 9.52   | 16.07   |  |
| 1893-94.....             | 20.3  | 72.1  | 140.4  | 194.8                          | 36.1  | 18.8  | 127.9   | 374   | 103.95   | 17.93   | 30.95   | 9.20   | 15.89   |  |
| 1894-95.....             | 19.8  | 72.6  | 141.5  | 194.8                          | 35.9  | 19.9  | 126.8   | 381   | 102.37   | 18.44   | 32.17   | 9.46   | 16.51   |  |
| South Atlantic Division: |   |   |  |                                |   |   |   |   |  |   |   |  |   |  |
| 1891-92.....             | 17.8  | 72.0  | 137.3  | 190.7                          | 37.3  | 28.9  | 121.9   | 407   | 58.37  | 14.79   | 23.08   | 7.75   | 12.10   |  |
| 1892-93.....             | 18.6  | 70.7  | 131.7  | 188.3                          | 35.4  | 26.3  | 133.1   | 457   | 64.90  | 16.14   | 22.45   | 8.66   | 12.05   |  |
| 1893-94.....             | 18.8  | 71.6  | 134.0  | 187.3                          | 36.0  | 23.5  | 130.4   | 426   | 68.85  | 16.03   | 22.69   | 8.56   | 12.12   |  |
| 1894-95.....             | 17.8  | 72.5  | 133.6  | 184.2                          | 35.2  | 26.9  | 127.8   | 373   | 60.31  | 15.88   | 21.84   | 8.62   | 11.86   |  |
| South Central Division:  |   |   |  |                                |   |   |   |   |  |   |   |  |   |  |
| 1891-92.....             | 24.4  | 70.7  | 131.2  | 185.5                          | 38.5  | 16.4  | 112.2   | 324   | 72.01  | 15.30   | 21.50   | 8.25   | 11.58   |  |
| 1892-93.....             | 22.5  | 72.7  | 133.9  | 184.2                          | 38.6  | 22.4  | 126.0   | 379   | 66.73  | 15.81   | 21.62   | 8.58   | 11.74   |  |
| 1893-94.....             | 21.1  | 74.4  | 134.3  | 180.4                          | 37.3  | 19.7  | 117.6   | 344   | 71.67  | 15.65   | 22.42   | 8.48   | 12.46   |  |
| 1894-95.....             | 18.8  | 69.6  | 125.6  | 180.6                          | 36.0  | 14.1  | 130.0   | 349   | 74.94  | 16.72   | 23.49   | 9.26   | 13.00   |  |
| North Central Division:  |   |   |  |                                |   |   |   |   |  |   |   |  |   |  |
| 1891-92.....             | 23.8  | 74.0  | 138.5  | 187.2                          | 36.4  | 19.3  | 127.4   | 368   | 96.50  | 17.63   | 30.21   | 9.40   | 16.14   |  |
| 1892-93.....             | 23.6  | 73.2  | 137.8  | 188.4                          | 35.9  | 19.8  | 130.4   | 388   | 95.54  | 17.95   | 32.73   | 9.53   | 17.37   |  |
| 1893-94.....             | 22.8  | 74.6  | 141.4  | 189.6                          | 36.3  | 17.3  | 127.6   | 385   | 98.05  | 17.56   | 31.93   | 9.26   | 16.85   |  |
| 1894-95.....             | 22.7  | 76.0  | 142.2  | 187.2                          | 37.0  | 16.4  | 130.9   | 408   | 96.01  | 17.73   | 30.83   | 9.47   | 16.47   |  |
| Western Division:        |   |   |  |                                |   |   |   |   |  |   |   |  |   |  |
| 1891-92.....             | 13.9  | 70.7  | 137.1  | 194.1                          | 36.9  | 13.8  | 124.8   | 312   | 154.00   | 23.87   | 44.52   | 12.30  | 22.95   |  |
| 1892-93.....             | 13.3  | 69.9  | 133.5  | 191.1                          | 35.9  | 13.8  | 123.4   | 318   | 156.23   | 24.05   | 48.16   | 12.59  | 25.21   |  |
| 1893-94.....             | 12.7  | 71.1  | 135.6  | 190.8                          | 35.5  | 15.1  | 121.3   | 297   | 151.07   | 24.07   | 38.26   | 12.20  | 19.40   |  |
| 1894-95.....             | 14.2  | 73.2  | 136.4  | 186.3                          | 37.4  | 14.8  | 122.7   | 335   | 133.40   | 22.83   | 36.14   | 12.61  | 20.05   |  |
| North Atlantic Division: |   |   |  |                                |   |   |   |   |  |   |   |  |   |  |
| Maine.....               | 18.8  | 77.6  | 136.4  | 175.7                          | 29.3  | 19.8  | 143.6   | 122   | 82.97  | 14.89   | 8.47  | 24.05  | 13.68   |  |

|                                 |      |       |       |       |      |       |       |     |        |       |       |       |       |
|---------------------------------|------|-------|-------|-------|------|-------|-------|-----|--------|-------|-------|-------|-------|
| <b>New Hampshire</b> .....      | 32.8 | 75.4  | 132.5 | 175.8 | 30.0 | 25.3  | 119.9 | 142 | 165.02 | 18.26 | 10.39 | 36.36 | 20.68 |
| Vermont.....                    | 34.0 | 68.5  | 124.2 | 181.2 | 28.3 | 18.6  | 137.0 | 164 | 129.73 | 17.66 | 9.74  | 38.77 | 21.40 |
| Massachusetts.....              | 15.3 | 70.0  | 153.7 | 193.6 | 35.5 | 30.9  | 124.9 | 244 | 122.80 | 20.14 | 10.35 | 33.71 | 17.32 |
| Rhode Island.....               | 17.2 | 64.9  | 125.6 | 193.4 | 29.5 | 38.9  | 141.8 | 223 | 118.11 | 20.61 | 11.17 | 38.69 | 20.01 |
| Connecticut.....                | 16.9 | 73.8  | 143.3 | 194.2 | 33.2 | 122.3 | 127.3 | 266 | 111.35 | 18.57 | 9.56  | 31.09 | 16.01 |
| New York.....                   | 21.8 | 71.6  | 140.3 | 195.9 | 36.6 | 16.1  | 127.1 | 685 | 96.26  | 19.00 | 9.70  | 32.87 | 16.78 |
| New Jersey.....                 | 21.6 | 67.6  | 134.5 | 199.0 | 37.2 | 13.8  | 123.6 | 475 | 74.24  | 17.23 | 8.68  | 26.03 | 13.08 |
| Pennsylvania.....               | 19.0 | 71.6  | 138.9 | 194.1 | 36.9 | 28.1  | 127.6 | 405 | 99.86  | 16.37 | 8.43  | 31.64 | 16.30 |
| <b>South Atlantic Division:</b> |      |       |       |       |      |       |       |     |        |       |       |       |       |
| Delaware.....                   | 74.9 | 146.9 | 196.0 | 196.0 | 35.4 | 69.0  | 137.7 | 373 | 85.10  | 13.99 | 7.14  | 22.59 | 11.52 |
| Maryland.....                   | 18.8 | 67.3  | 133.9 | 196.9 | 31.8 | 184.2 | 143.1 | 538 | 51.05  | 17.65 | 8.87  | 23.10 | 12.62 |
| District of Columbia.....       | 11.5 | 75.4  | 138.3 | 183.3 | 32.7 | 20.4  | 113.2 | 348 | 103.99 | 21.91 | 11.95 | 30.32 | 16.54 |
| Virginia.....                   | 21.1 | 75.0  | 131.9 | 175.7 | 41.3 | 19.6  | 116.6 | 398 | 41.21  | 11.62 | 6.61  | 14.97 | 8.52  |
| West Virginia.....              | 12.3 | 72.0  | 127.2 | 176.5 | 33.7 | 17.8  | 126.1 | 394 | 83.56  | 14.23 | 8.06  | 21.89 | 12.40 |
| South Carolina.....             | 20.0 | 85.0  | 152.2 | 179.0 | 47.2 | 8.9   | 106.0 | 564 | 28.63  | 10.37 | 5.79  | 11.30 | 6.31  |
| South Carolina.....             | 18.0 | 77.6  | 138.8 | 179.0 | 41.7 | 13.5  | 121.3 | 417 | 49.59  | 13.73 | 7.77  | 17.77 | 9.93  |
| Florida.....                    | 27.2 | 64.6  | 82.0  | 126.8 | 28.8 | 57.0  | 152.9 | 93  | 24.84  | 11.12 | 8.77  | 13.47 | 10.62 |
| <b>South Central Division:</b>  |      |       |       |       |      |       |       |     |        |       |       |       |       |
| Kentucky.....                   | 21.5 | 73.0  | 143.7 | 196.7 | 35.7 | 17.3  | 143.3 | 504 | 67.97  | 18.22 | 9.26  | 23.59 | 11.99 |
| Tennessee.....                  | 14.0 | 72.5  | 133.0 | 183.4 | 43.7 | 8.2   | 117.9 | 474 | 63.86  | 14.47 | 7.89  | 17.53 | 9.56  |
| Alabama.....                    | 17.5 | 78.3  | 134.2 | 171.3 | 38.8 | 20.2  | 120.1 | 353 | 66.30  | 15.90 | 9.34  | 23.79 | 13.89 |
| Mississippi.....                | 23.5 | 70.5  | 127.0 | 180.0 | 33.4 | 10.8  | 155.7 | 409 | 59.06  | 12.10 | 6.72  | 15.03 | 8.35  |
| Texas.....                      | 16.2 | 69.2  | 114.4 | 165.3 | 37.3 | 17.6  | 122.1 | 292 | 91.43  | 16.29 | 9.86  | 22.23 | 13.45 |
| Arkansas.....                   | 12.6 | 67.3  | 118.5 | 176.1 | 42.4 | 30.3  | 127.3 | 281 | 94.88  | 14.28 | 8.11  | 20.37 | 11.57 |
| Oklahoma.....                   | 10.3 | 56.9  | 87.0  | 153.0 | 29.6 | 25.0  | 162.2 | 171 | 67.57  | 15.24 | 9.96  | 32.36 | 21.15 |
| <b>North Central Division:</b>  |      |       |       |       |      |       |       |     |        |       |       |       |       |
| Ohio.....                       | 25.0 | 79.9  | 150.5 | 188.4 | 37.2 | 20.5  | 131.3 | 428 | 102.23 | 17.51 | 9.29  | 29.77 | 15.80 |
| Indiana.....                    | 18.5 | 74.2  | 135.7 | 183.0 | 36.6 | 18.1  | 144.3 | 398 | 88.26  | 15.04 | 8.22  | 25.51 | 13.94 |
| Illinois.....                   | 25.7 | 77.0  | 147.9 | 192.0 | 37.8 | 15.8  | 137.1 | 574 | 97.60  | 15.47 | 10.63 | 37.47 | 19.51 |
| Michigan.....                   | 23.2 | 74.2  | 143.0 | 192.7 | 36.5 | 15.7  | 121.2 | 323 | 83.81  | 20.41 | 8.33  | 28.80 | 14.94 |
| Wisconsin.....                  | 28.2 | 75.3  | 138.7 | 184.2 | 37.0 | 15.2  | 131.0 | 369 | 78.32  | 16.61 | 9.02  | 24.95 | 13.54 |
| Minnesota.....                  | 21.0 | 73.7  | 144.0 | 187.8 | 37.6 | 10.9  | 119.8 | 397 | 136.61 | 20.23 | 10.77 | 33.84 | 18.02 |
| Iowa.....                       | 14.4 | 70.7  | 139.7 | 182.5 | 33.6 | 14.5  | 123.8 | 281 | 100.85 | 16.71 | 9.15  | 28.10 | 15.40 |
| Missouri.....                   | 21.3 | 71.9  | 131.1 | 182.4 | 36.0 | 17.4  | 128.2 | 428 | 85.90  | 17.58 | 9.64  | 31.81 | 17.44 |
| South Dakota.....               | 6.2  | 82.7  | 128.5 | 167.5 | 35.8 | 22.0  | 114.3 | 180 | 95.24  | 16.71 | 9.98  | 25.60 | 15.28 |
| Nebraska.....                   | 8.4  | 71.7  | 128.7 | 179.4 | 36.3 | 13.6  | 124.9 | 279 | 112.14 | 18.11 | 10.09 | 27.83 | 15.52 |
| Kansas.....                     | 12.4 | 71.4  | 123.6 | 173.1 | 40.3 | 19.6  | 122.8 | 275 | 74.21  | 12.18 | 7.03  | 18.79 | 10.85 |
| <b>Western Division:</b>        |      |       |       |       |      |       |       |     |        |       |       |       |       |
| Montana.....                    | 10.1 | 72.4  | 123.1 | 170.0 | 33.3 | 31.6  | 142.3 | 259 | 123.85 | 23.80 | 14.00 | 36.96 | 21.74 |
| Wyoming.....                    | 8.0  | 69.3  | 116.1 | 173.0 | 27.5 | 9.3   | 129.9 | 200 | 174.86 | 30.47 | 17.61 | 39.06 | 22.58 |
| Colorado.....                   | 10.2 | 67.1  | 126.0 | 181.9 | 38.2 | 11.3  | 125.5 | 315 | 196.23 | 22.90 | 12.59 | 47.38 | 26.04 |
| Utah.....                       | 73.2 | 73.2  | 132.8 | 181.3 | 37.9 | 12.0  | 127.7 | 346 | 111.19 | 15.95 | 8.80  | 37.30 | 20.57 |
| Nevada.....                     | 10.2 | 82.1  | 167.4 | 204.0 | 36.2 | 20.0  | 122.5 | 222 | 72.17  | 22.96 | 11.25 | ..... | ..... |
| Washington.....                 | 11.1 | 75.6  | 131.6 | 174.1 | 37.5 | 17.3  | 141.2 | 390 | 154.98 | 19.40 | 11.14 | 31.37 | 18.02 |
| Oregon.....                     | 10.2 | 78.9  | 148.0 | 187.6 | 38.7 | 20.9  | 112.6 | 296 | 94.04  | 22.50 | 11.99 | 31.81 | 16.96 |
| California.....                 | 18.1 | 73.4  | 140.6 | 191.6 | 37.4 | 15.2  | 117.4 | 349 | 120.73 | 24.42 | 12.75 | 34.01 | 17.75 |





## CHAPTER II.

### STATISTICS OF SECONDARY SCHOOLS.

The number of students receiving secondary instruction in institutions reporting to the United States Bureau of Education for the scholastic year 1894-95 was 539,712, an increase of 59,354 over the number reported for the year 1893-94. This is probably in excess of the actual increase in the number of students, as allowance must be made for the addition of several hundred high schools to the lists. While some of these are newly established schools, others have been in existence for a year or two, but they reported to this office for the first time in 1895. These 539,712 secondary students were distributed among eight classes of institutions as follows:

|   |          |
|---|----------|
| In public high schools .....              | 350, 099 |
| In public normal schools .....            | 5, 247   |
| In public universities and colleges ..... | 6, 024   |
| In private high schools .....             | 118, 347 |
| In private normal schools.....            | 8, 589   |
| In private universities and colleges..... | 43, 164  |
| In private colleges for women .....       | 4, 824   |
| In manual training schools.....           | 3, 418   |

|  |          |
|--|----------|
| Total secondary students reported..... | 539, 712 |
|--|----------|

Of the total number above enumerated 361,370 were in public institutions and 178,342 in private institutions. In addition to those counted in the three classes of public institutions there were many others pursuing secondary studies in the common schools of the country. In many States, and particularly in the States where high schools are few, in almost every public elementary school one or more students may be found pursuing certain secondary studies. In most of the States these are not reported as secondary students to the State authorities, but are counted with the elementary pupils. This Bureau is without the data necessary for a close estimate of the number of such secondary students in the elementary schools. Probably the number is not less than 50,000 nor more than 100,000.

#### SECONDARY SCHOOLS.

More than 50 pages of the Education Report for 1893-94 were devoted to a statistical review of secondary education. The statistical summaries of that year were discussed with minuteness. As the tables for

1894-95 are in practically the same form, and no new facts have been brought to light, a lengthy discussion of the statistics presented in this report is not deemed necessary. A brief explanation of the tabular summaries will be sufficient.

The statistics here considered relate directly to secondary schools, i. e. to public high schools and private high schools and academies. Secondary students in other institutions are not considered at present because information concerning them is not complete. For the past six years this Bureau has annually collected information directly from several thousand public and private high schools. The forms of inquiry, while improved from year to year, have followed the same lines, seeking to bring out and make prominent certain facts. The number of schools reporting increased from 4,158 in 1890 to 6,892 in 1895. There was also improvement in the manner of collecting information, and year by year the work of compilation has gained in thoroughness. The continuity of the statistics has remained unbroken while they have gained in accuracy from year to year.

The following table is a condensed review of the statistics of public and private high schools for the past six years:

| Year reported. | Public.  |           |           | Private. |           |           | Total.   |           |           |
|----------------|----------|-----------|-----------|----------|-----------|-----------|----------|-----------|-----------|
|                | Schools. | Teachers. | Students. | Schools. | Teachers. | Students. | Schools. | Teachers. | Students. |
| 1889-90 .....  | 2,526    | 9,120     | 202,963   | 1,632    | 7,209     | 94,931    | 4,158    | 16,329    | 297,894   |
| 1890-91 .....  | 2,771    | 8,270     | 211,596   | 1,714    | 6,231     | 98,400    | 4,485    | 14,501    | 309,996   |
| 1891-92 .....  | 3,035    | 9,564     | 239,556   | 1,550    | 7,093     | 100,739   | 4,585    | 16,657    | 340,295   |
| 1892-93 .....  | 2,812    | 9,489     | 232,951   | 1,434    | 6,261     | 96,147    | 4,246    | 15,750    | 329,098   |
| 1893-94 .....  | 3,964    | 12,120    | 289,274   | 1,982    | 8,009     | 118,645   | 5,946    | 20,129    | 407,919   |
| 1894-95 .....  | 4,712    | 14,122    | 350,099   | 2,180    | 8,559     | 118,347   | 6,892    | 22,681    | 468,446   |

In this chapter will be found tables summarizing the principal statistics gathered from the 6,892 secondary schools, while in Part IV of this report the information concerning each school is given in detail.

Tables 1 to 10 in this chapter relate to public high schools in all the States; Tables 11 to 22 relate to private high schools, while Tables 23 to 31 combine the statistics of public and private high schools dealing with the institutions as secondary schools simply.

### PUBLIC HIGH SCHOOLS.

In these tables the statistics are summarized by States and then by divisions. The geographical divisions are purely arbitrary and are used here for the sake of uniformity, the statistics of the Census Office having been compiled in this form. For the purposes of this Bureau a different grouping of the States would be better. For example, the South Atlantic and the South Central divisions might be thrown together and the State of Missouri included with them. This grouping

would be more convenient to those who wish to study the progress of education in the former slave States during the past twenty years. Such a study is not contemplated for this report.

For the year ending June, 1895, the number of public high schools reporting to this office was 4,712. It is believed that this is within a few hundred of the total number of public high schools in operation during the year. Many so-called high schools were not included in the list for the reason that they had not reached the ordinary standard for secondary schools as indicated in the form of inquiry sent out from this office. A secondary student was there defined as one pursuing at least two of the recognized secondary studies. The secondary studies named included Latin, Greek, French, German, algebra, geometry, trigonometry, astronomy, physics, physical geography, geology, zoology, botany, physiology, rhetoric, English literature, and history.

A reference to Table 1 will show that the 4,712 public high schools were distributed in the five divisions as follows: North Atlantic, 1,156; North Central, 2,424; South Atlantic, 378; South Central, 542; Western, 212. Ohio alone had 474 high schools, New York 332, Illinois 305, Iowa 298, Michigan 271, Indiana 270, Pennsylvania 256, and Massachusetts 216. In the South Central Division Texas had 156 high schools and in the South Atlantic Georgia had 118.

The 4,712 public high schools had 14,122 teachers employed in instructing secondary students. This number does not include those teachers whose time was wholly devoted to the instruction of elementary pupils in the lower grades attached to independent high schools. The average number of teachers to a school was 3, as shown in the first column of Table 23, the average number for the North Atlantic Division being 3.8 and for the South Central 2.3.

There were 350,099 secondary students in the public high schools of the United States. A glance at the seventh column of Table 1 will show how those students were distributed by States and by divisions. The North Atlantic had 109,591, the North Central 173,158, the South Atlantic 20,480, the South Central 28,064, and the Western Division 18,806. Ohio stands at the head of the list with 32,597; New York follows with 32,489, and Massachusetts is third with 27,053. Texas leads the South with 9,087 secondary students; Georgia is next with 5,556, and Tennessee follows with 4,766.

Of the 350,099 secondary students 206,022 were females and 144,077 males. The per cent of females was 58.85 and of males 41.15, as shown in Table 7. This proportion is practically maintained in each of the five divisions, the South Atlantic Division alone showing as high a percentage as 42.05 for male students. In Nevada the percentage of male students was 34.16, the lowest shown for any State.

The number of colored secondary students in the public high schools was 4,622, as shown in the tenth column of Table 1. There were 795 in the schools of the North Atlantic Division, 2,046 in the North



Central, 1,020 in the South Atlantic, 715 in the South Central, and 46 in the Western Division.

From the last column of Table 1 it would appear there were 1,264,464 pupils in the elementary departments connected with the public high schools. This number is of little value because the question in relation to pupils below the high-school grades was misunderstood by many of the high-school principals. The result was that in many cases all the children in the village schools were counted. The question was intended to apply to independent high schools only.

Table 2 shows that 48,146 secondary students in the public high schools were preparing for college. This was nearly 14 per cent of the whole number. Of these 26,370 were preparing for classical courses and 21,776 for scientific courses, 7.53 per cent for the former and 6.22 for the latter. In the North Atlantic Division 14.81 per cent of the students were preparing for college, in the North Central 11.79 per cent, in the South Atlantic 13.40 per cent, in the South Central 19.45 per cent, and in the Western Division 17.36 per cent. A comparison of the fourth and fifth columns of Table 7 will show marked variations in the proportions between classical and scientific students in the several divisions. In the North Atlantic, South Atlantic, and South Central divisions the per cent of classical students is greater, while in the North Central and Western divisions the per cent of scientific students is greater. Placing the classical first, the proportions are as follows: 9.07 to 5.74 per cent in the North Atlantic, 10.68 to 2.72 in the South Atlantic, 12.15 to 7.30 in the South Central, 5.56 to 6.23 in the North Central, and 6.29 to 11.07 in the Western Division. This of course indicates that the East and the South lean toward the classical training, while the Northwest and West incline toward the education in the sciences. The contrasts between the numbers in the two courses are still more marked in individual States. In Rhode Island the per cent of students preparing for the college classical course was 22.52, and the per cent preparing for the college scientific course was only 4.17. In South Carolina the corresponding percentages were 22.95 and 6.62. On the other hand, in Minnesota the per cent of classical preparatory students was only 4.89 as against 20.55 per cent of scientific preparatory students.

The number of graduates from the public high schools at the close of the school year 1895 was 42,393, or 12.11 per cent of the whole number of secondary students. The number of male graduates was 15,158 and of female graduates 27,235. The per cent of male graduates to the total number of male students was 10.52, while 13.21 per cent of the female students in attendance were graduated. In the ninth column of Table 2 will be found the number of graduates in each State. The corresponding percentages are found in the sixth column of Table 7. It is noted that in the District of Columbia 17.63 per cent of the secondary students were in the graduating class.

Of the 42,393 students graduating, 11,903 were preparing for college, as may be seen from the twelfth column of Table 2. This number was 28.08 per cent of the total number graduating, as shown in the seventh column of Table 7. The percentages for the several States present strong contrasts when compared. For example, in Mississippi 85.98 per cent of the graduates were college preparatory students, while in Massachusetts the per cent was only 22.94, and in the District of Columbia only 4.50.

The last column of Table 2 shows that there were 5,812 students in the public high schools receiving instruction in military tactics—3,843 in the North Atlantic Division, 375 in the South Atlantic, 172 in the South Central, 1,210 in the North Central, and 212 in the Western Division.

#### STUDENTS AND STUDIES.

The numbers of public high school students pursuing certain studies are given in Tables 3, 4, 5, and 6, and the corresponding percentages in Tables 8 and 9. The four former tables should be considered in connection with the two latter. Tables 3, 4, 5, and 6 show the numbers of students, male and female, in each State studying Latin, Greek, French, German, algebra, geometry, trigonometry, astronomy, physics, chemistry, physical geography, geology, physiology, psychology, rhetoric, and history other than that of the United States.

*Latin.*—Of the 350,099 secondary students in the public high schools, 43.97 per cent studied Latin, 153,950 in all, 60,777 males and 93,173 females. In the North Atlantic Division 42.64 per cent studied this language; in the South Atlantic, 63.33 per cent; in the South Central, 48.48 per cent; in the North Central, 41.55 per cent, and in the Western Division, 46.24 per cent. North Carolina shows the largest percentage, 83.12, and Wisconsin the smallest, 21.61, leaving the Territory of Arizona out of the list. It is somewhat remarkable that the two Northern divisions show the smallest percentages of students pursuing the classic Latin.

*Greek.*—From an inspection of the sixth column of Table 3 it will be seen that 10,859 students in the public high schools studied Greek—6,361 males and 4,498 females. The students in Greek comprised 3.10 per cent of the whole number. In the North Atlantic Division the per cent was 6.15, and in the North Central 1.36. In Rhode Island the per cent was 11.75, in Maine 13.41. From Delaware, West Virginia, Oklahoma, North Dakota, Montana, Wyoming, New Mexico, Arizona, Nevada, Idaho, Washington, and Oregon there were no Greek students reported. Florida reported only 1, South Dakota 2, and Utah 5.

*French.*—The number of students studying French was 22,813, or 6.52 per cent of the whole number. In the North Atlantic Division the per cent was 14.21, in the South Atlantic 9.52, in the South Central 3.03, in the North Central 2.14, and in the Western Division 3.97. The highest

percentage in any State was 36.75, in Massachusetts, and the next 32.79, in Louisiana.

*German.*—The German language was studied by 39,901 students, 15,235 males and 24,666 females. The per cent for the entire United States was 11.40. The percentage for the North Atlantic Division was 13.52, for the South Atlantic 13.06, for the South Central 4.22, for the North Central 10.84, and for the Western Division 13.12. The highest percentages were in the District of Columbia and in Maryland, 29.84 and 29.83, respectively.

*Algebra.*—Of the total 350,099 secondary students, 189,988, or 54.27 per cent, were studying algebra. The male students in algebra numbered 79,524, and the female students 110,464. The South Central Division leads with 66.56 per cent, the South Atlantic is next with 65.99 per cent, the Western Division had 58.88, the North Central 52.78, and the North Atlantic 50.48.

*Geometry.*—More than 25 per cent of the students had geometry as the second mathematical study. There were 36,078 males and 52,624 females, or a total of 88,702. In the North Atlantic Division 25.80 per cent studied geometry, in the South Atlantic 32.38, in the South Central 28.77, in the North Central 22.93, in the Western Division 32; for the whole United States 25.34.

*Trigonometry.*—Only 8,868 students included trigonometry in their courses of study, 4,160 males and 4,708 females. The per cent was 2.53, although in the two Southern divisions the percentages were 7.49 and 6.92.

*Astronomy.*—In the public high schools astronomy is classed as a science study. It was pursued by 16,770 students in 1895, or 4.79 per cent of the whole number.

*Physics.*—The number of students in physics was 79,720, the males numbering 33,450 and the females 46,270. The per cent of students in this branch was 22.77 for the whole country, the two Southern divisions leading with 30.45 and 29.97, respectively.

*Chemistry.*—This branch of science claimed only 32,024 students, or 9.15 per cent of the whole number. The Western Division had 14.22 per cent of its students in chemistry.

*Physical geography.*—The number studying physical geography was 83,642, the males numbering 35,293 and the females 48,349. The percentage to the total number of secondary students was 23.89, the South Central Division leading with 29.78, the Western Division reporting only 15.18 per cent in physical geography.

*Geology.*—Five per cent of the high-school students studied geology, 7,182 males, 10,306 females, a total of 17,488. In the South Central Division the per cent was 7.80, and in the North Atlantic 6.25.

*Physiology.*—The science study claiming the largest number of students was physiology. The number in this branch was 104,862, or 29.95 per cent of the total. The males numbered 44,274 and the



females 60,588. In the South Central Division the per cent was as high as 39.15 and in the Western Division as low as 16.75. In Florida the per cent was 54.40 and in Alabama 52.76. In Vermont the per cent was 15.20 and in Rhode Island 4.42.

*Psychology.*—The number of students studying psychology was 9,606, or 2.74 per cent of the whole number. It is noticeable that the highest per cent, 5.77, was in the South Central Division, and the next highest, 3.29, was in the South Atlantic Division. In Alabama the per cent was 16.97.

*Rhetoric.*—More than 32 per cent of the students studied rhetoric, 45,429 males and 66,776 females, making a total of 112,205. The Western Division was in the lead with a percentage of 43.91, the South Central had 39.04 per cent, the South Atlantic 36.40, the North Central 32.15, and the North Atlantic 27.26.

*History.*—The number of students reading history other than United States history was 120,201, or 34.33 per cent of the whole number. In the Western Division the per cent was 48.90, in the South Atlantic 48.61, in the South Central 42.11, in the North Atlantic 34.89, and the North Central 29.45.

#### EQUIPMENT AND INCOME.

An inspection of Table 10 will enable the reader to form an estimate of the amount of money necessary to keep in operation the 4,712 public high schools of the United States. It is very difficult to collect statistics of school finances. This is particularly true of public high schools for the reason that so many of them are parts of city school systems whose officials do not keep separate accounts of the expenditures for secondary instruction.

The aggregate value of buildings and grounds, etc., is given as \$78,026,394. Only 3,858 of the 4,712 principals furnished figures for this item, and in most cases the figures furnished were only estimates. However, there is reason to believe that \$78,026,394 is a fair valuation of the property of the 3,858 public schools.

The number of public high schools reporting libraries was 3,288, and the aggregate number of volumes reported was 1,838,946. There were 741 of these libraries having more than 500 volumes each, and of these 437 had more than 1,000 volumes each.

Replies were received from only 2,563 of the 4,712 schools in response to the inquiry as to the amounts of appropriations received from State, county, or city. The aggregate amount reported was only \$7,719,199. It is believed that a large part of the \$4,060,262 given in column 11 of Table 10 as "amount received from other sources and unclassified" more properly belongs in column 4.

As shown in the seventh column, 2,849 schools received from tuition and other fees \$1,018,631.

Only 331 schools received an income from productive funds, and the amounts received aggregated \$710,705.



Of the 4,712 schools, only 3,549 reported the total amounts received. These aggregated \$13,508,797. Of this large sum, \$3,696,637 was reported from the North Atlantic Division, \$732,045 from the South Atlantic, \$1,220,688 from the South Central, \$6,863,021 from the North Central, and \$996,406 from the Western Division.

#### PRIVATE HIGH SCHOOLS.

In public and private high schools in 1895 there were 468,446 secondary students. Of these about 25 per cent, or 118,347, were in private high schools and academies. The number of such schools was 2,180, or nearly 32 per cent of the total number of secondary schools.

The statistics of private high schools and academies are summarized in Tables 11 to 22. Tables 11 to 20 correspond in form to Tables 1 to 10 of the public high school summaries, and the two series can be easily compared, column by column.

Table 11 shows that in the 2,180 private high schools there were 8,559 (3,991 males and 4,568 females) teachers instructing secondary students. In the two southern divisions the number of female teachers is not so greatly in excess of the number of male teachers as in the two northern divisions.

In the private high schools there were 57,354 male secondary students and 60,993 female, the per cent of males being 48.46. In the public high schools the percentage of males was only 41.15. In the private high schools there were 113,878 elementary pupils—51,761 males and 62,117 females.

The number of students preparing for college in the private high schools was 32,051. Of these, 20,477 were preparing for the classical course and 11,574 for a scientific course. The per cent of college preparatory students was 27.08, the classical preparatory being 17.30 per cent and the scientific preparatory 9.78 per cent. In the public high schools 13.75 per cent of the secondary students were preparing for college, 7.53 per cent for the classical course, and 6.22 for a scientific course.

The number of graduates from private high schools in 1895 was 11,960, or 10.11 per cent of the whole number. (See Tables 12 and 17.) The number was divided almost equally between the sexes, there being 6,052 male and 5,908 female graduates.

The number of college preparatory students in the graduating classes was 5,733, or 47.93 per cent of the whole number of graduates. Of these college preparatory graduates 3,724 were males and 2,009 females. In the public high schools the per cent of college preparatory students in the graduating classes was 28.08, and largely more than half of the number were females.

A comparison is made in Table 23 between certain public and private high school statistics.

## STUDENTS AND STUDIES.

The numbers of students in the private high schools pursuing certain studies are given in Tables 13, 14, 15, and 16, and the corresponding percentages are given in Tables 18 and 19. These tables, when compared with Tables 3, 4, 5, 6, 8, and 9, present rather marked contrasts between the public and private high schools in regard to certain secondary studies.

In the public high schools 43.97 per cent of the secondary students studied Latin. In the private secondary schools the per cent was 43.14. In the public high school the per cent studying Greek was only 3.15, while in the private high school it was 9.55. In French the per cents were 6.52 for the public and 19.38 for the private high schools. In German the per cents were 11.40 and 16.07; in algebra, 54.27 and 46.88; in geometry, 25.34 and 22.06; in trigonometry, 2.53 and 5.39; in astronomy, 4.79 and 6.69; in physics, 22.77 and 20.32; in chemistry, 9.15 and 9.79; in physical geography, 23.89 and 18.15; in geology, 5 and 7.08; in physiology, 29.95 and 22.34; in psychology, 2.74 and 5.13; in rhetoric, 32.05 and 29.12; in general history, 34.33 and 35.60.

## EQUIPMENT AND INCOME.

The number of private high schools reporting libraries was 1,361, as may be seen from an inspection of Table 20. The aggregate number of volumes in these libraries was 1,498,427.

Of the total number of schools, 1,545 reported the value of property owned. The aggregate, including value of grounds, buildings, and scientific apparatus, was \$51,865,512. This would give to each school reporting an average valuation of property of \$33,570.

Only 315 of the schools are endowed institutions, but the endowments aggregate \$24,729,613, an average of about \$78,500 to a school.

Public funds were received in small amounts by 301 schools, the aggregate reaching only \$157,293.

Only 1,424 schools reported the amounts received from tuition fees. The aggregate was \$6,002,380.

The number of schools having income from productive funds was 338, and the amounts received from this source aggregated \$1,864,054. This sum is more than  $7\frac{1}{2}$  per cent of the aggregate of endowments reported. The rate is probably too high, owing to the fact that 23 schools reporting incomes from productive funds were not reported as having endowments.

Only 1,449 of the 2,180 private high schools answered the question in regard to total amount of income. The aggregate received for support from all sources was \$8,878,218, or about \$6,127 to each school.

Benefactions amounting to \$495,760 were received in 1895 by 140 schools. The North Atlantic Division claimed 51 of these schools and

\$219,077 of the gifts. It may also be noted that of the \$24,729,613, total endowment of private secondary schools, \$20,312,025 is possessed by 165 schools in the North Atlantic Division, and that 21 schools in Pennsylvania have \$12,415,813, or more than half of the entire sum. The endowment of Girard College, \$11,235,113, is included in this sum.

#### DENOMINATIONAL SCHOOLS.

Less than half the private secondary schools are controlled or supported by religious denominations. Of the 2,180 schools reporting to this office, 1,270 are nonsectarian. (See Tables 21 and 22.) The Roman Catholic Church supports 280 schools, having 12,777 secondary students. The Episcopal Church has 119 schools with 5,552 students; the Baptist, 109 schools with 7,424 students; the Presbyterian, 102 schools with 4,654 students; the Methodist Episcopal Church South 72 schools and 7,685 students; the Congregational, 56 schools and 2,882 students; the Friends, 57 schools with 3,851 students; the Methodist, 39 schools with 2,144 students; the Lutheran, 36 schools with 1,908 students. All other religious denominations have 40 schools with 3,564 students.

#### PUBLIC AND PRIVATE SECONDARY SCHOOLS.

To facilitate the study of the statistics of secondary schools, regardless of whether the schools are public or private, Tables 24 to 29 were prepared from the preceding tables, relating separately to public and private high schools.

Table 24 shows that in 1894-95 there were 6,892 secondary or high schools reporting to this office. These schools had 22,681 teachers instructing secondary students. In the schools there were 468,446 secondary students, 201,431 males and 267,015 females. The males constituted 43 per cent and the females 57 per cent of the students in high-school studies. The proportion of male and female students varies greatly in different States, as may be seen by comparing the fifth and seventh columns of Table 24. In several States the per cent of female students is above 60.

Ten per cent of the students, or 46,847, were preparing for the college classical courses and 7.11 per cent, or 33,350, for the college scientific courses. Compare the last column of Table 24 with the second column of Table 25. The third and fourth columns of the latter table show that 80,197 students, or 17.11 per cent of the whole number, were preparing for college.

The number of graduates in 1895 was 54,353, or 11.60 per cent of the whole number of secondary students. The number of college preparatory students in the classes that graduated was 17,636, or 32.44 per cent of the whole number of graduates.

The numbers of students pursuing certain secondary studies are given in Tables 26 to 29. The per cent in each study in each State is also given in the same tables.

Of the 468,446 secondary students there were 205,006, or 43.76 per cent, studying Latin. The per cent was highest in the South Atlantic division, 55.69. In several States of that division more than 60 per cent of the high-school students pursued this study.

The number of secondary students pursuing Greek was 22,159, or only 4.73 per cent of the whole number. The North Atlantic Division had 8.41 per cent. New Hampshire was first in the list, with 14.73 per cent of students in Greek.

French was studied by 45,746 students, or 9.77 per cent of the whole number. In the North Atlantic Division the per cent was 18.77. In Massachusetts the per cent of students in French was 38.02, and the per cent in Louisiana was 46.60. However, the disproportion in numbers was very great, Massachusetts having 12,619 students in French and Louisiana only 1,378.

The German language had 58,921 students in the secondary schools, 12.58 per cent of the whole number. The North Atlantic had 16.48 per cent, the highest for any division, and Maryland had 28.83 per cent, the highest for any State.

Algebra is the study which claims the largest number of students, as will be seen by reference to the first column of Table 27. There were 245,465 students in this branch, or 52.40 per cent of the whole number. The percentages in the two Southern divisions were 58.72 and 58.97, respectively, and in the North Atlantic Division 49.15. In Maryland more than 70 per cent studied algebra.

The number studying geometry was less than half the number in algebra. There were 114,813 students in geometry, 24.51 per cent of the whole number. In the North Central Division the per cent was only 22.54, while in the Western Division it was 29.48.

The study claiming the smallest number of students was trigonometry. Only 15,243, or 3.25 per cent, pursued this branch of mathematics. The two Southern divisions show percentages of 6.28 and 6.88. In Alabama the per cent was 13.67, in Vermont 0.69, and in Minnesota 0.41.

The per cent of students in astronomy was 5.27, the number being 24,690. The largest per cent, 12.60, was claimed by Florida, and the smallest, 0.87, by Delaware.

Physics was studied by 103,768 students, or over 22.15 per cent of the whole number. The State having the largest per cent of students in this branch was Maryland, with 42.65. In Vermont the per cent was 14.81 and in Utah only 8.89.

Chemistry had 43,607 students. This number was 9.31 per cent of all. The Western Division had 13.29 per cent of its students in chemistry, Nevada leading with 32.14 per cent.

The number of students in physical geography was 105,124, or 22.44 per cent of the total. In the North Central Division 24.74 per cent of the students pursued this study. The per cent in South Dakota was



36.18. In the South Atlantic Division the per cent was 23.31, Florida alone having 43.66 per cent of its secondary students in physical geography.

There were 25,866 students in geology, 5.52 per cent of the whole number. The table shows wide variations between the percentages in different States. In Tennessee the per cent was 12.08 and in Maryland only 2.43.

Physiology had a larger number of students than any other science study. The number was 131,304 and the per cent 28.03, as may be seen from Table 29. The per cent for the South Central Division was 31.97 and for the Western Division 18.62. In Arkansas 43.89 per cent of the students studied physiology.

The number of students in psychology was 15,677, the per cent being 3.35. Several States reported no students in this study. In Utah the per cent was 10.66. Oklahoma's 44 students in psychology comprised 20.95 per cent of the whole number of secondary students in that Territory.

Rhetoric was studied by 31.31 per cent of the secondary students, the number pursuing this study being 146,672. The per cent for the Western Division was 40.92 and for the North Atlantic 27.56. The per cent for California was 52.60 and for New York 21.23.

General history, or history other than that of the United States, had 162,336 students, or 34.65 per cent of the total. The Western Division had 46.58 per cent, the South Atlantic 43.48, the South Central 36.71, the North Atlantic 35.51, and the North Central 30.01. The largest per cent for any State was 61.59, for Maryland, and the smallest 17.05, for Utah.

#### SECONDARY STUDENTS.

It was stated in the beginning of this chapter that there were 539,712 secondary students in eight classes of institutions reporting to this office in 1895. Tables 30 and 31 show the distribution of these students according to the class of institution in which they are found as well as their distribution by States and geographical divisions.

The third column of Table 30 shows the grand total of secondary students in public and private institutions, the first column showing that there were 243,151 males, and the second column 296,561 females. The North Atlantic Division had 164,439 of these students, the South Atlantic 49,378, the South Central 66,797, the North Central 229,055, and the Western Division 30,043.

The sixth column of this table summarizes the number of secondary students in public high schools. The distribution of these 350,099 students has been noted in preceding pages.

The ninth column of Table 30 shows that there were 6,024 secondary students in the preparatory departments of public colleges and universities, 4,327 males and 1,697 females. These were distributed among 86 State institutions in 31 States and Territories.

In the public normal schools of 18 States there were 5,247 students of secondary grade, 1,228 males and 4,019 females. The total is given in the twelfth column of Table 30.

The total number of secondary students in public institutions was 361,370, as shown in the last column of the table. Of this total 149,632 were males and 211,738 females.

Table 31 shows the distribution of secondary students in private institutions. In the third column will be found the number in private high schools and academies, 118,347. This summary was noticed at length in preceding pages.

The preparatory departments of private colleges and universities had 43,164 students, 29,538 males and 13,626 females. As will be seen from the sixth column of Table 31, more than one-half of these secondary students were in the North Central Division. Of these Illinois had 4,336, Ohio 4,282, and Missouri 3,191.

In the preparatory departments of colleges for women there were 4,824 secondary students. (See column 7, Table 31, Table 31.)

The private normal schools had 8,589 secondary students, as shown in the tenth column, 4,568 males and 4,021 females. Of these 2,982 were in the North Central Division.

The manual training schools of 11 States had 3,418 students of secondary grade, 2,059 males and 1,359 females. (See column 13, Table 31.)

The total number of secondary students in private institutions was 178,342, as shown in the last column of the table, 93,519 males and 84,823 females. This total was divided among the divisions as follows: North Atlantic, 51,518; South Atlantic, 27,743; South Central, 37,213; North Central, 52,378; Western, 9,490.

#### A STATISTICAL REVIEW.

Following the 31 tables giving statistical summaries of public and private secondary schools for the scholastic year 1894-95, this chapter concludes with a statistical review for the past five years. Thirty-four tables, 32 to 65, review the more important statistical items relating to high schools from 1890-91 to 1894-95. This review was made necessary since certain errors had crept into a few of the summaries in former years, and, moreover, for one or two years important summaries had been omitted entirely. These summaries have been compiled from the original returns and are here presented in a form which will make them valuable for comparison. Thus, it will be seen that for five years the statistics of secondary schools are continuous. The forms of inquiry were similar, and the information appears tabulated for each year in summaries which are uniform. It is true that certain of the tables show wide variations between two years, but these apparent inconsistencies are partially explained in footnotes.

Tables 32 to 48 relate to public high schools. Table 32 shows the number of such schools for each of the five years from 1891 to 1895 for

each State and the number of instructors for each year. Table 33 gives the number of male and female teachers instructing secondary students; 34 gives the number of secondary students and elementary pupils for each year; 35, the secondary students, male and female; 36, the elementary pupils, male and female; 37, the colored secondary students, male and female; 38, the classical and the scientific college preparatory students; 39, the classical preparatory students, male and female; 40, the scientific preparatory students, male and female; 41, the graduates for each year, male and female; 42, the graduates and the college preparatory students in the graduating class each year; 43, the college preparatory graduates, male and female; 44, the number of volumes in the public-school libraries each year; 45, the value of grounds, buildings, and scientific apparatus; 46, amount of aid received from the States, counties, and cities; 47, amounts received from tuition; 48, total income for each year.

Tables 49 to 65 relate to private high schools and academies, and deal with like items and in the same order as above enumerated for public high schools. The tables are readily understood without further explanation.

#### THE ENDOWED ACADEMIES.

The names of the 315 academies and private high schools reporting endowments will be found in the list which follows. The amount of the endowment for each school, as reported to this office in 1895, is given in the following table:

| Institutions and locations.                      | Endowments. | Institutions and locations.                        | Endowments. |
|--|-------------|--|-------------|
| Noble Institute (girls), Anniston, Ala.          | \$10,000    | Hutcheson Collegiate Institute, Whitesburg, Ga.    | \$3,500     |
| Male and Female Academy, Lower Peach Tree, Ala.  | 600         | The College of Idaho, Caldwell, Idaho.             | 2,000       |
| Male and Female Academy, Pisgah, Ala.            | 200         | Southern Collegiate Institute, Albion, Ill.        | 500         |
| Salitpa Academy, Salitpa, Ala.                   | 800         | The Union Academy of Southern Illinois, Anna, Ill. | 50,000      |
| Talladega College, Talladega, Ala.               | 145,000     | Jennings Seminary, Aurora, Ill.                    | 5,000       |
| Male and Female College, Quitman, Ark.           | 1,000       | Geneseo Collegiate Institute, Geneseo, Ill.        | 12,000      |
| Rogers Academy, Rogers, Ark.                     | 150         | Monticello Female Seminary, Godfrey, Ill.          | 20,000      |
| Belmont School, Belmont, Cal.                    | 9,000       | Greenville College, Greenville, Ill.               | 5,000       |
| Jarvis Hall (Military Academy), Denver, Colo.    | 100,000     | Gittings Seminary, La Harpe, Ill.                  | 10,000      |
| Tillotson Academy, Trinidad, Colo.               | 500         | Mendota College, Mendota, Ill.                     | 15,000      |
| Morgan School, Clinton, Conn.                    | 200,000     | Mt. Morris College, Mt. Morris, Ill.               | 10,000      |
| Bacon Academy, Colchester, Conn.                 | 30,000      | Grand Prairie Seminary, Onarga, Ill.               | 13,000      |
| Housatonic Valley Institute, Cornwall, Conn.     | 15,000      | Point Byron Academy, Point Byron, Ill.             | 50,000      |
| Glastonbury Academy, Glastonbury, Conn.          | 25,000      | Concordia College, Springfield, Ill.               | 1,000       |
| The Hotchkiss School, Lakeville, Conn.           | 200,000     | Waterman Hall, Sycamore, Ill.                      | 75,000      |
| Bulkeley School, New London, Conn.               | 65,000      | Toulon Academy, Toulon, Ill.                       | 10,000      |
| Williams Memorial Institute, New London, Conn.   | 125,000     | Vermilion Academy, Vermilion Grove, Ill.           | 20,000      |
| Gilbert School, Winsted, Conn.                   | 500,000     | Friends Bloomingdale Academy, Bloomingdale, Ind.   | 4,000       |
| Woodstock Academy, Woodstock, Conn.              | 11,500      | Borden Institute, Borden, Ind.                     | 5,000       |
| St. Leo Military College, St. Leo, Fla.          | 900         | Howe School, Lima, Ind.                            | 15,000      |
| Atlanta Baptist Seminary, Atlanta, Ga.           | 25,000      | Oakland City College, Oakland City, Ind.           | 20,000      |
| Academy of Richmond County, Augusta, Ga.         | 60,000      | Central Academy, Plainfield, Ind.                  | 1,200       |
| The Payne Institute, Augusta, Ga.                | 25,000      | Sugar Grove Academy, Plainfield, Ind.              | 800         |
| Summerville Academy, Augusta, Ga.                | 70,000      | Spiceland Academy, Spiceland, Ind.                 | 4,000       |
| Walker Baptist Institute, Augusta, Ga.           | 150         | Vincennes University, Vincennes, Ind.              | 59,000      |
| Hearn School (male and female), Cave Spring, Ga. | 7,000       | Union High School, Westfield, Ind.                 | 6,000       |
| Martin Institute, Jefferson, Ga.                 | 15,000      | Nuyaka Mission School, Okmulgee, Ind.              | 1,000       |
| Mineral Bluff High School, Mineral Bluff, Ga.    | 500         |  |             |



| Institutions and locations.                            | Endow-ments. | Institutions and locations.                                       | Endow-ments. |
|--|--------------|---|--------------|
| Scattergood Seminary, Centerdale, Iowa                 | \$2, 100     | Deerfield Academy and Dickinson High School, Deerfield, Mass      | \$75, 000    |
| Denmark Academy, Denmark, Iowa                         | 18, 000      | Nichols Academy, Dudley, Mass                                     | 8, 000       |
| Elk Horn College, Elk Horn, Iowa                       | 2, 500       | Partridge Academy, Duxbury, Mass                                  | 25, 000      |
| Hull Educational Institute, Hull, Iowa                 | 12, 000      | Williston Seminary, Easthampton, Mass                             | 340, 000     |
| Le Grand Christian College, Le Grand, Iowa             | 1, 100       | Northfield Seminary, East Northfield, Mass                        | 160, 000     |
| Northwestern Classical Academy, Orange City, Iowa      | 10, 000      | Dean Academy, Franklin, Mass                                      | 100, 000     |
| Cedar Valley Seminary, Osage, Iowa                     | 50, 400      | Lawrence Academy, Groton, Mass                                    | 30, 000      |
| Wilton German-English College, Wilton Junction, Iowa   | 5, 000       | Hopkins Academy, Hadley, Mass                                     | 40, 000      |
| Hiawatha Academy, Hiawatha, Kans                       | 5, 000       | Bromfield School, Harvard, Mass                                   | 80, 000      |
| Kansas Christian College, Lincoln, Kans                | 1, 000       | Smith Academy, Hatfield, Mass                                     | 75, 000      |
| Bethel College, Newton, Kans                           | 50, 000      | Derby Academy, Hingham, Mass                                      | 31, 000      |
| St. Mary's College, St. Marys, Kans                    | 80, 000      | Leicester Academy, Leicester, Mass                                | 51, 000      |
| Stockton Academy, Stockton, Kans                       | 325          | Tabor Academy, Marion, Mass                                       | 219, 287     |
| Auburn Seminary, Auburn, Ky                            | 2, 000       | Milton Academy, Milton, Mass                                      | 9, 000       |
| Alexander College, Burkesville, Ky                     | 1, 400       | Monson Academy, Monson, Mass                                      | 75, 000      |
| Clinton College, Clinton, Ky                           | 12, 000      | Mount Hermon School, Mount Hermon, Mass                           | 224, 653     |
| Vanderbilt Training School, Elkton, Ky                 | 20, 000      | Admiral Sir Isaac Coffin's Lancasterian School, Nantucket, Mass   | 45, 000      |
| Henderson High School, Henderson, Ky                   | 8, 000       | New Salem Academy, New Salem, Mass                                | 8, 000       |
| Funk Seminary, La Grange, Ky                           | 3, 000       | Wheaton Seminary, Norton, Mass                                    | 10, 500      |
| Pikeville Collegiate Institute, Pikeville, Ky          | 5, 000       | Woodward Institute for Girls, Quincy, Mass                        | 295, 864     |
| Princeton Collegiate Institute, Princeton, Ky          | 10, 000      | Arms Academy, Shelburne Falls, Mass                               | 30, 000      |
| Gilbert Scientific and Industrial College, Winsted, La | 40, 000      | The Thayer Academy, South Braintree, Mass                         | 320, 000     |
| Somerset Academy, Athens, Me                           | 6, 000       | South Lancaster Academy, South Lancaster, Mass                    | 5, 350       |
| Gould Academy, Bethel, Me                              | 1, 000       | Waltham New-Church School, Waltham, Mass                          | 26, 800      |
| Blue Hill Academy, Blue Hill, Me                       | 12, 000      | Westford Academy, Westford, Mass                                  | 49, 922      |
| East Maine Conference Seminary, Bucksport, Me          | 20, 000      | Wesleyan Academy, Wilbraham, Mass                                 | 66, 000      |
| Higgins Classical Institute, Charleston, Me            | 25, 000      | Murdock High School, Winchendon, Mass                             | 200, 000     |
| Bridge Academy, Dresden Mills, Me                      | 45, 000      | Worcester Academy, Worcester, Mass                                | 105, 000     |
| Pennell Institute, Gray, Me                            | 30, 000      | Raisin Valley Seminary, Adrian, Mich                              | 20, 000      |
| Hampden Academy, Hampden, Me                           | 10, 000      | The Detroit School for Boys, Detroit, Mich                        | 10, 000      |
| Hebron Academy, Hebron, Me                             | 75, 000      | Akeley Institute, Grand Haven, Mich                               | 4, 000       |
| Ricker Classical Institute, Houlton, Me                | 34, 000      | Michigan Female Seminary, Kalamazoo, Mich                         | 10, 000      |
| Maine Wesleyan Seminary, Kents Hill, Me                | 240, 000     | German Lutheran Seminary, Saginaw, Mich                           | 3, 400       |
| Phillips Limerick Academy, Limerick, Me                | 1, 000       | Shattuck School, Faribault, Minn                                  | 103, 000     |
| Limington Academy, Limington, Me                       | 500          | Pillsbury Academy, Owatonna, Minn                                 | 68, 000      |
| Litchfield Academy, Litchfield Corners, Me             | 600          | Academy of Lourdes, Rochester, Minn                               | 200, 000     |
| Lincoln Academy, Newcastle, Me                         | 12, 000      | Baldwin Seminary, St. Paul, Minn                                  | 25, 000      |
| Anson Academy, North Anson, Me                         | 5, 000       | College of St. Thomas, St. Paul, Minn                             | 5, 000       |
| Bridgton Academy, North Bridgton, Me                   | 15, 000      | Convent Visitation, St. Paul, Minn                                | 25, 000      |
| Paris Hill Academy, Paris, Me                          | 2, 500       | Kate Tucker Institute, Byhalia, Miss                              | 5, 000       |
| Pittsfield Central Institute, Pittsfield, Me           | 10, 000      | Chamberlain-Hunt Academy, Port Gibson, Miss                       | 40, 000      |
| Thornton Academy, Saco, Me                             | 70, 855      | Mississippi Normal Institute, Sherman, Miss                       | 700          |
| Potter Academy, Sebago, Me                             | 31, 500      | Jefferson Military College, Washington, Miss                      | 40, 000      |
| Berwick Academy, South Berwick, Me                     | 60, 000      | Oakland Normal Institute, Yale, Miss                              | 1, 500       |
| Erskine Academy, South Erskine, Me                     | 8, 000       | Watson Seminary, Ashley, Mo                                       | 12, 960      |
| Oak Grove Seminary, Vassalboro, Me                     | 20, 000      | Kemper Family School, Boonville, Mo                               | 5, 000       |
| Coburn Classical Institute, Waterville, Me             | 57, 000      | Brookfield College, Brookfield, Mo                                | 12, 500      |
| North Yarmouth Academy, Yarmouth, Me                   | 10, 000      | Female Orphan School of the Christian Church, Camden Point, Mo    | 20, 000      |
| McDonogh School, McDonogh, Md                          | 900, 000     | Carleton College, Farmington, Mo                                  | 3, 000       |
| Jacob Tome Institute, Port Deposit, Md                 | 950, 985     | The Orphan School of the Christian Church of Missouri, Fulton, Mo | 58, 000      |
| The Hannah More Academy, Reisters-town, Md             | 4, 000       | Weanbleau Christian College, Weanbleau, Mo                        | 1, 000       |
| Abbot Academy, Andover, Mass                           | 42, 414      | Franklin Academy, Franklin, Nebr                                  | 9, 780       |
| Phillips Academy, Andover, Mass                        | 236, 000     | Grand Island College, Grand Island, Nebr                          | 15, 000      |
| Punchard Free School, Andover, Mass                    | 60, 000      | Hastings College, Hastings, Nebr                                  | 15, 000      |
| Cushing Academy, Ashburnham, Mass                      | 115, 000     | Kezer Seminary, Canterbury, N. H.                                 | 7, 000       |
| Mitchell's Boys' School, Billerica, Mass               | 1, 000       | Austin Academy, Center Strafford, N. H                            | 5, 000       |
| Bradford Academy, Bradford, Mass                       | 50, 000      | The Phillips Exeter Academy, Exeter, N. H                         | 400, 450     |
|  |              | Francistown Academy, Francistown, N. H                            | 10, 000      |
|  |              | Dow Academy, Franconia, N. H                                      | 60, 000      |



| Institutions and locations.  | Endowments. | Institutions and locations.  | Endowments. |
|--|-------------|--|-------------|
| Gilmanton Academy, Gilmanton, N. H.                                    | \$5,000     | Barrett Collegiate and Industrial Institute, Pee Dee, N. C.                  | \$650       |
| McCollom Institute, Mount Vernon, N. H.                                | 10,000      | St. Augustine's School, Raleigh, N. C.                                       | 30,000      |
| Colby Academy, New London, N. H.                                       | 102,000     | Wayne School, Waynesville, N. C.   | 500         |
| Coe's Northwood Academy, Northwood Center, N. H.                       | 5,600       | Grand River Institute, Austinburg, Ohio                                      | 40,000      |
| Holderness School (Boys) Plymouth, N. H.                               | 100,000     | Beverly Normal College, Beverly, Ohio  | 800         |
| McGaw Normal Institute, Reeds Ferry, N. H.                             | 20,000      | Ohio Military Institute, Cincinnati (College Station), Ohio                  | 15,000      |
| Blair Presbyterian Academy, Blairs-town, N. J.                         | 150,000     | Damascus Academy, Damascus, Ohio   | 4,000       |
| Farmum Preparatory School, Beverly, N. J.                              | 20,000      | Poland Union Seminary, Poland, Ohio  | 16,500      |
| The German Theological School of Newark, New Jersey, Bloomfield, N. J. | 60,000      | Savannah Academy, Savannah, Ohio   | 2,500       |
| The South Jersey Institute, Bridgeton, N. J.                           | 50,000      | New Lyme Institute, South New Lyme, Ohio                                     | 25,000      |
| Westfield Friends School, Cinnaminson, N. J.                           | 4,250       | Salem Academy, South Salem, Ohio   | 700         |
| Dwight School for Girls, Englewood, N. J.                              | 15,600      | Western Reserve Seminary, West Farmington, Ohio                              | 2,500       |
| Peddle Institute, Hightstown, N. J.                                    | 170,000     | La Creole Academic Institute, Dallas, Oreg.                                  | 5,500       |
| Pennington Seminary, Pennington, N. J.                                 | 4,000       | Santiam Academy, Lebanon, Oreg.  | 1,850       |
| Adams Collegiate Institute, Adams, N. Y.                               | 2,700       | Bishop Scott Academy, Portland, Oreg.  | 10,000      |
| Albany Academy, Albany, N. Y.  | 30,000      | Portland Academy, Portland, Oreg.  | 283         |
| St. Elizabeth's Academy, Allegany, N. Y.                               | 3,000       | Hughesian Free School, Buckingham, Pa.                                       | 20,000      |
| Ives Seminary, Antwerp, N. Y.  | 6,350       | Jefferson Academy, Canonsburg, Pa.   | 1,500       |
| Union Academy of Belleville, Belleville, N. Y.                         | 37,585      | Easton Academy, Easton, Pa.  | 2,000       |
| Adelphia Academy, Brooklyn, N. Y.                                      | 2,000       | Keystone Academy, Factoryville, Pa.  | 12,000      |
| Canandaigua Academy, Canandaigua, N. Y.                                | 10,000      | Friends' School (orthodox), Germantown, Pa.                                  | 25,000      |
| Canistota Academy, Canistota, N. Y.                                    | 2,000       | Juniata College, Huntingdon, Pa.   | 20,000      |
| Cazenovia Seminary, Cazenovia, N. Y.                                   | 38,500      | Abington Friends' School, Jenkintown, Pa.                                    | 250,000     |
| Claverack Academy and Hudson River Institute, Claverack, N. Y.         | 50          | Wyoming Seminary, Kingston, Pa.  | 25,000      |
| St. Bernard's Academy, Cohoes, N. Y.                                   | 815         | Kittanning Academy, Kittanning, Pa.  | 5,000       |
| Munro Collegiate Institute, Elbridge, N. Y.                            | 12,100      | Western Pennsylvania Classical and Scientific Institute, Mount Pleasant, Pa. | 44,000      |
| Clinton Liberal Institute and Military Institute, Fort Plain, N. Y.    | 35,000      | George School, Newtown, Pa.  | 450,000     |
| Delaware Literary Institute, Franklin, N. Y.                           | 3,000       | North Washington Institute, North Hope, Pa.                                  | 500         |
| Colgate Academy, Hamilton, N. Y.                                       | 55,000      | Friends' Select School, Philadelphia, Pa.                                    | 70,000      |
| Hartwick Seminary, Hartwick Seminary, N. Y.                            | 55,178      | The Girard College for Orphans, Philadelphia, Pa.                            | 11,235,113  |
| Hempstead Institute, Hempstead, N. Y.                                  | 2,000       | Bishop Bowman Institute, Pittsburg, Pa.                                      | 5,000       |
| Cascadilla School, Ithaca, N. Y.                                       | 3,562       | Clarion Collegiate Institute, Rimersburg, Pa.                                | 200         |
| Genesee Wesleyan Seminary, Lima, N. Y.                                 | 91,154      | Susquehanna University, Selins Grove, Pa.                                    | 50,000      |
| Lowville Academy, Lowville, N. Y.                                      | 40,500      | Hall Institute, Sharon, Pa.  | 35,000      |
| Cook Academy, Montour Falls, N. Y.                                     | 81,290      | Sugar Grove Seminary, Sugar Grove, Pa.                                       | 3,000       |
| Sherman Collegiate Institute, Moriah, N. Y.                            | 30,000      | Susquehanna Collegiate Institute, Towanda, Pa.                               | 12,000      |
| Mount Morris Latin School, New York City, N. Y.                        | 500         | Waterford Academy, Waterford, Pa.  | 4,500       |
| Sach's Collegiate Institute (boys), New York City, N. Y.               | 10,000      | York Collegiate Institute, York, Pa.   | 140,000     |
| DeVeaux School, Niagara Falls, N. Y.                                   | 266,145     | East Greenwich Academy, East Greenwich, R. I.                                | 30,000      |
| Cary Collegiate Seminary, Oakfield, N. Y.                              | 20,000      | High School of Charleston, Charleston, S. C.                                 | 4,000       |
| Evans Academy, Peterboro, N. Y.  | 15,000      | Thornwell Orphanage, Clinton, S. C.  | 18,000      |
| Pike Seminary, Pike, N. Y.   | 20,781      | Cokesbury Conference School, Cokesbury, S. C.                                | 800         |
| Seymour-Smith Academy, Pine Plains, N. Y.                              | 510         | All Saints School, Sioux Falls, S. Dak.                                      | 10,000      |
| Chamberlain Institute, Randolph, N. Y.                                 | 43,048      | Sioux Falls University, Sioux Falls, S. Dak.                                 | 15,000      |
| Wagner Memorial Lutheran College, Rochester, N. Y.                     | 15,000      | Kingsley Seminary, Bloomingdale, Tenn.                                       | 250         |
| Southold Academy, Southold, N. Y.                                      | 18,000      | Chapel Hill Academy, Chapel Hill, Tenn.                                      | 3,500       |
| Staten Island Academy and Latin School, Stapleton, N. Y.               | 12,000      | Cloverdale Seminary, Cloverdale, Tenn.                                       | 1,600       |
| La Salle Institute, Troy, N. Y.  | 2,462       | Masonic College, Dayton, Tenn.   | 1,000       |
| St. Peter's Academy, Troy, N. Y.                                       | 367         | University School of Knoxville, Knoxville, Tenn.                             | 1,000       |
| Troy Female Seminary, Troy, N. Y.                                      | 5,000       | Lobelville High School, Lobelville, Tenn.                                    | 700         |
| Trinity School, Chocowinity, N. C.                                     | 1,500       | Montgomery Bell Academy, Nashville, Tenn.                                    | 50,000      |
| Scotia Seminary, Concord, N. C.  | 4,000       | Swift Memorial Institute, Rogersville, Tenn.                                 | 500         |
| Franklinton Christian College, Franklinton, N. C.                      | 4,000       | Roane College, Wheat, Tenn.  | 3,000       |
| Shortia School, Highlands, N. C.                                       | 500         | Blinn Memorial College, Brenham, Tex.  | 32,000      |
| Robeson Institute, Lumberton, N. C.                                    | 5,009       | Northwest Texas Baptist College, Decatur, Tex.                               | 15,000      |
|  |             | Mary Allen Seminary, Crockett, Tex.  | 2,000       |
|  |             | Gordon Academy, Ogden, Utah  | 10,000      |

| Institutions and locations.              | Endowments. | Institutions and locations.            | Endowments. |
|--|-------------|--|-------------|
| Brigham Young Academy, Provo, Utah.      | \$75,000    | Vermont Academy, Saxtons River, Vt.    | \$75,000    |
| Rowland Hall, Salt Lake City, Utah...    | 10,000      | Thetford Academy, Thetford, Vt.....    | 5,000       |
| Salt Lake College, Salt Lake City, Utah. | 4,000       | Leland and Gray Seminary, Town-        |             |
| Brigham Academy, Bakersfield, Vt....     | 130,000     | shend, Vt.....                         | 11,000      |
| Goddard Seminary, Barre, Vt.....         | 27,000      | Wartburg Seminary, Graham, Va.....     | 25,000      |
| Vermont Episcopal Institute, Burling-    |             | Kleinberg School, Rockfish Depot, Va.. | 5,000       |
| ton, Vt.....                             | 3,000       | Shenandoah Valley Academy, Win-        |             |
| Derby Academy, Derby, Vt.....            | 11,000      | chester, Va.....                       | 5,000       |
| Essex Classical Institute, Essex, Vt...  | 9,000       | Puget Sound Academy, Coupeville,       |             |
| McIndoes Falls Academy, McIndoes,        |             | Wash.....                              | 6,000       |
| Vt.....                                  | 2,500       | Annie Wright Seminary, Tacoma,         |             |
| Burr and Burton Seminary, Manches-       |             | Wash.....                              | 50,000      |
| ter, Vt.....                             | 30,000      | The Waitsburg Academy, Waitsburg,      |             |
| Montpelier Seminary, Montpelier, Vt..    | 34,058      | Wash.....                              | 6,000       |
| Beeman Academy, New Haven, Vt....        | 12,000      | West Virginia Normal and Classical     |             |
| Craftsbury Academy, North Crafts-        |             | Academy, Buckhannon, W. Va.....        | 9,000       |
| bury, Vt.....                            | 5,000       | Wayland University, Beaver Dam,        |             |
| Caledonia County School or Peacham       |             | Wis.....                               | 75,000      |
| Academy, Peacham, Vt.....                | 15,000      | German-English Academy, Milwau-        |             |
| Troy Conference Academy, Poultney,       |             | kee, Wis.....                          | 7,000       |
| Vt.....                                  | 12,000      | Poynette Academy, Poynette, Wis.....   | 500         |
| Royalton Academy, Royalton, Vt.....      | 5,000       | Carroll College, Waukesha, Wis.....    | 18,000      |
| St. Johnsbury Academy, St. Johns-        |             |  |             |
| bury, Vt.....                            | 100,000     |  |             |

TABLE 1.—Summary of statistics of public high schools.

## SCHOOLS, INSTRUCTORS, AND STUDENTS.

| State or Territory.      | Number of Schools. | Secondary teachers. |        |         | Secondary students. |          |          | Colored students (included in preceding column.) |        |        | Students below secondary grades. |          |          |  |
|--------------------------|--------------------|---------------------|--------|---------|---------------------|----------|----------|--|--------|--------|----------------------------------|----------|----------|--|
|                          |                    | Male.               |        | Female. | Total.              | Male.    |          | Female.  | Total. | Male.  |                                  | Female.  | Total.   |  |
|                          |                    |                     |        |         |                     |          |          |  |        |        |                                  |          |          |  |
| United States            |                    |                     |        |         |                     |          |          |  |        |        |                                  |          |          |  |
| North Atlantic Division  | 1, 156             | 1, 766              | 2, 606 | 4, 372  | 46, 018             | 63, 573  | 109, 591 | 317  | 478    | 795    | 140, 779                         | 151, 041 | 291, 820 |  |
| South Atlantic Division  | 378                | 408                 | 428    | 896     | 8, 227              | 12, 253  | 20, 480  | 344  | 676    | 1, 020 | 30, 618                          | 32, 721  | 63, 339  |  |
| South Central Division   | 542                | 704                 | 554    | 1, 258  | 11, 801             | 16, 263  | 28, 064  | 264  | 451    | 715    | 56, 408                          | 59, 724  | 116, 132 |  |
| North Central Division   | 2, 424             | 3, 456              | 3, 388 | 6, 844  | 70, 241             | 102, 917 | 173, 158 | 816  | 1, 230 | 2, 046 | 355, 319                         | 372, 089 | 728, 000 |  |
| Western Division         | 212                | 393                 | 359    | 752     | 7, 790              | 11, 016  | 18, 806  | 15   | 31     | 46     | 32, 241                          | 32, 924  | 65, 165  |  |
| North Atlantic Division: |                    |                     |        |         |                     |          |          |  |        |        |                                  |          |          |  |
| Maine                    | 111                | 128                 | 124    | 252     | 2, 919              | 3, 950   | 6, 869   | 5  | 10     | 15     | 1, 254                           | 1, 303   | 2, 557   |  |
| New Hampshire            | 48                 | 55                  | 82     | 137     | 1, 430              | 1, 908   | 3, 338   | 2  | 1      | 3      | 2, 154                           | 2, 319   | 4, 473   |  |
| Vermont                  | 50                 | 51                  | 72     | 123     | 1, 231              | 1, 579   | 2, 810   | 1  | 1      | 2      | 3, 468                           | 3, 859   | 7, 327   |  |
| Massachusetts            | 216                | 399                 | 656    | 1, 055  | 11, 784             | 15, 269  | 27, 053  | 60   | 86     | 146    | 14, 105                          | 17, 159  | 31, 264  |  |
| Rhode Island             | 14                 | 41                  | 59     | 100     | 955                 | 1, 487   | 2, 442   | 7  | 5      | 12     | 85                               | 98       | 183      |  |
| Connecticut              | 60                 | 106                 | 146    | 252     | 2, 659              | 3, 126   | 5, 785   | 11   | 21     | 32     | 4, 048                           | 4, 185   | 8, 233   |  |
| New York                 | 332                | 449                 | 885    | 1, 334  | 13, 626             | 18, 863  | 32, 489  | 44   | 81     | 125    | 53, 778                          | 56, 836  | 110, 614 |  |
| New Jersey               | 69                 | 103                 | 188    | 291     | 2, 856              | 4, 299   | 7, 155   | 66   | 81     | 147    | 16, 293                          | 16, 780  | 33, 073  |  |
| Pennsylvania             | 256                | 434                 | 394    | 828     | 8, 558              | 13, 092  | 21, 650  | 121  | 132    | 313    | 45, 594                          | 48, 502  | 94, 096  |  |
| South Atlantic Division: |                    |                     |        |         |                     |          |          |  |        |        |                                  |          |          |  |
| Delaware                 | 13                 | 17                  | 18     | 35      | 401                 | 577      | 978      | 0  | 0      | 0      | 1, 579                           | 1, 636   | 3, 215   |  |
| Maryland                 | 46                 | 64                  | 73     | 137     | 1, 327              | 1, 978   | 3, 305   | 0  | 0      | 0      | 2, 852                           | 3, 491   | 6, 343   |  |
| District of Columbia     | 4                  | 37                  | 45     | 82      | 862                 | 1, 407   | 2, 269   | 197  | 421    | 618    | 0                                | 0        | 0        |  |
| Virginia                 | 83                 | 86                  | 87     | 173     | 1, 504              | 2, 218   | 3, 812   | 49   | 81     | 130    | 5, 478                           | 5, 608   | 11, 086  |  |
| West Virginia            | 24                 | 29                  | 15     | 44      | 356                 | 612      | 968      | 13   | 30     | 43     | 4, 101                           | 4, 370   | 8, 471   |  |
| North Carolina           | 16                 | 15                  | 22     | 37      | 431                 | 523      | 954      | 9  | 9      | 14     | 1, 688                           | 1, 943   | 3, 631   |  |
| South Carolina           | 50                 | 56                  | 35     | 91      | 743                 | 917      | 1, 660   | 16   | 20     | 36     | 3, 122                           | 3, 326   | 6, 448   |  |
| Georgia                  | 118                | 131                 | 120    | 251     | 2, 101              | 3, 455   | 5, 556   | 64   | 115    | 179    | 10, 215                          | 10, 836  | 21, 051  |  |
| Florida                  | 24                 | 33                  | 13     | 46      | 412                 | 566      | 978      | 0  | 0      | 0      | 1, 493                           | 1, 511   | 3, 004   |  |
| South Central Division:  |                    |                     |        |         |                     |          |          |  |        |        |                                  |          |          |  |
| Kentucky                 | 62                 | 90                  | 89     | 179     | 1, 766              | 2, 352   | 4, 118   | 74   | 172    | 246    | 8, 733                           | 9, 112   | 17, 845  |  |
| Tennessee                | 104                | 133                 | 79     | 212     | 1, 989              | 2, 777   | 4, 766   | 88   | 160    | 248    | 9, 678                           | 9, 859   | 19, 537  |  |
| Alabama                  | 51                 | 57                  | 52     | 109     | 1, 033              | 1, 560   | 2, 593   | 0  | 0      | 0      | 3, 179                           | 3, 003   | 6, 182   |  |
| Mississippi              | 87                 | 97                  | 67     | 164     | 1, 438              | 1, 733   | 3, 171   | 0  | 0      | 0      | 6, 344                           | 6, 732   | 13, 076  |  |
| Louisiana                | 22                 | 36                  | 46     | 82      | 569                 | 849      | 1, 418   | 0  | 0      | 0      | 1, 183                           | 1, 421   | 2, 604   |  |
| Texas                    | 156                | 213                 | 170    | 383     | 3, 736              | 5, 351   | 9, 087   | 27   | 57     | 84     | 17, 944                          | 19, 610  | 37, 554  |  |
| Arkansas                 | 52                 | 65                  | 41     | 106     | 1, 082              | 1, 495   | 2, 577   | 27   | 48     | 75     | 6, 323                           | 6, 817   | 13, 140  |  |
| Oklahoma                 | 3                  | 4                   | 4      | 8       | 58                  | 93       | 151      | 1  | 1      | 2      | 407                              | 437      | 844      |  |
| Indian Territory         | 5                  | 9                   | 6      | 15      | 130                 | 53       | 183      | 47   | 13     | 60     | 2, 617                           | 2, 733   | 5, 350   |  |
| North Central Division:  |                    |                     |        |         |                     |          |          |  |        |        |                                  |          |          |  |
| Ohio                     | 474                | 688                 | 573    | 1, 261  | 13, 751             | 18, 846  | 32, 597  | 216  | 304    | 520    | 59, 966                          | 59, 951  | 119, 917 |  |

|                   |     |     |     |       |        |        |        |     |     |     |        |        |        |
|-------------------|-----|-----|-----|-------|--------|--------|--------|-----|-----|-----|--------|--------|--------|
| Indiana.....      | 270 | 415 | 281 | 696   | 6,878  | 9,634  | 16,512 | 101 | 145 | 246 | 39,506 | 41,541 | 81,047 |
| Illinois.....     | 305 | 515 | 514 | 1,029 | 10,187 | 16,802 | 26,989 | 82  | 157 | 239 | 45,385 | 48,271 | 93,656 |
| Michigan.....     | 271 | 346 | 462 | 808   | 8,765  | 12,471 | 21,266 | 60  | 108 | 168 | 46,105 | 48,384 | 94,489 |
| Wisconsin.....    | 182 | 237 | 257 | 494   | 5,548  | 7,524  | 13,072 | 14  | 9   | 23  | 28,278 | 29,045 | 57,923 |
| Minnesota.....    | 97  | 161 | 267 | 428   | 3,805  | 5,019  | 9,484  | 15  | 23  | 38  | 16,963 | 18,339 | 35,302 |
| Iowa.....         | 298 | 354 | 458 | 812   | 8,049  | 11,696 | 19,745 | 25  | 42  | 67  | 39,352 | 41,810 | 81,162 |
| Missouri.....     | 158 | 262 | 237 | 499   | 5,113  | 8,188  | 13,301 | 190 | 244 | 434 | 28,666 | 31,198 | 59,864 |
| North Dakota..... | 21  | 20  | 26  | 46    | 328    | 401    | 729    | 2   | 1   | 3   | 2,473  | 2,550  | 5,023  |
| South Dakota..... | 29  | 36  | 25  | 61    | 490    | 710    | 1,200  | 0   | 1   | 1   | 3,279  | 3,618  | 6,897  |
| Nebraska.....     | 164 | 200 | 164 | 364   | 3,738  | 5,500  | 9,238  | 14  | 20  | 34  | 21,362 | 21,889 | 43,251 |
| Kansas.....       | 155 | 222 | 124 | 346   | 3,529  | 5,526  | 9,055  | 97  | 176 | 273 | 23,984 | 25,493 | 49,477 |
| Western Division: |     |     |     |       |        |        |        |     |     |     |        |        |        |
| Montana.....      | 17  | 19  | 22  | 41    | 355    | 595    | 946    | 2   | 2   | 4   | 3,621  | 3,843  | 7,464  |
| Wyoming.....      | 5   | 4   | 9   | 13    | 108    | 132    | 260    | 0   | 0   | 0   | 0      | 889    | 1,822  |
| Colorado.....     | 44  | 92  | 84  | 176   | 1,472  | 2,210  | 3,682  | 6   | 16  | 22  | 6,291  | 6,636  | 12,927 |
| New Mexico.....   | 6   | 7   | 9   | 16    | 118    | 98     | 216    | 1   | 1   | 2   | 797    | 660    | 1,457  |
| Arizona.....      | 4   | 6   | 0   | 6     | 60     | 108    | 168    | 0   | 0   | 0   | 500    | 500    | 1,012  |
| Utah.....         | 2   | 12  | 4   | 16    | 188    | 325    | 513    | 0   | 0   | 0   | 1,547  | 1,819  | 3,366  |
| Nevada.....       | 6   | 6   | 9   | 15    | 110    | 212    | 322    | 0   | 0   | 0   | 0      | 968    | 1,917  |
| Idaho.....        | 6   | 6   | 7   | 13    | 98     | 157    | 255    | 0   | 3   | 3   | 1,348  | 1,849  | 2,631  |
| Washington.....   | 29  | 49  | 32  | 81    | 795    | 1,041  | 1,836  | 1   | 1   | 2   | 4,957  | 4,930  | 9,887  |
| Oregon.....       | 15  | 23  | 20  | 43    | 614    | 885    | 1,499  | 1   | 0   | 1   | 2,751  | 3,008  | 5,759  |
| California.....   | 78  | 169 | 163 | 332   | 3,872  | 5,237  | 9,109  | 4   | 8   | 12  | 8,526  | 8,297  | 16,923 |



TABLE 2.—*Summary of statistics of public high schools.*

## STUDENTS AND COURSES OF STUDY.

| State or Territory.                    | Students preparing for college. |         |         |                    |         |         | Graduates in class of 1895. |         |         | College prepara-<br>tory students in<br>graduating<br>class of 1895. |         |         | Students in mili-<br>tary tactics. |
|--|---------------------------------|---------|---------|--------------------|---------|---------|-----------------------------|---------|---------|--|---------|---------|------------------------------------|
|  | Classical course.               |         |         | Scientific course. |         |         |                             |         |         |  |         |         |                                    |
|  | Male.                           | Female. | Total.  | Male.              | Female. | Total.  | Male.                       | Female. | Total.  | Male.  | Female. | Total.  |                                    |
| United States . . . . .                | 12, 915                         | 13, 455 | 26, 370 | 11, 587            | 10, 189 | 21, 776 | 15, 158                     | 27, 235 | 42, 393 | 5, 444   | 6, 459  | 11, 903 | 5, 812                             |
| North Atlantic Divi-<br>sion . . . . . | 5, 487                          | 4, 462  | 9, 949  | 3, 947             | 2, 351  | 6, 298  | 5, 342                      | 9, 137  | 14, 479 | 1, 700   | 1, 448  | 3, 148  | 3, 843                             |
| South Atlantic Divi-<br>sion . . . . . | 1, 057                          | 1, 131  | 2, 188  | 307                | 250     | 557     | 698                         | 1, 448  | 2, 146  | 253  | 342     | 595     | 375                                |
| South Central Divi-<br>sion . . . . .  | 1, 625                          | 1, 786  | 3, 411  | 1, 056             | 994     | 2, 050  | 619                         | 1, 452  | 2, 101  | 289  | 405     | 694     | 172                                |
| North Central Divi-<br>sion . . . . .  | 4, 203                          | 5, 436  | 9, 639  | 5, 231             | 5, 568  | 10, 799 | 7, 598                      | 13, 867 | 21, 465 | 2, 832   | 3, 823  | 6, 655  | 1, 210                             |
| Western Division . . . . .             | 543                             | 640     | 1, 183  | 1, 046             | 1, 026  | 2, 072  | 871                         | 1, 331  | 2, 202  | 370  | 441     | 811     | 212                                |
| North Atlantic Divi-<br>sion:          |                                 |         |         |                    |         |         |                             |         |         |  |         |         |                                    |
| Maine . . . . .                        | 455                             | 422     | 877     | 174                | 71      | 245     | 304                         | 480     | 784     | 123  | 77      | 200     | 40                                 |
| New Hampshire . . . . .                | 140                             | 151     | 291     | 144                | 125     | 269     | 135                         | 267     | 402     | 46   | 57      | 103     | 259                                |
| Vermont . . . . .                      | 154                             | 108     | 262     | 175                | 189     | 364     | 146                         | 244     | 390     | 57   | 63      | 120     | 65                                 |
| Massachusetts . . . . .                | 2, 214                          | 2, 101  | 4, 345  | 1, 041             | 265     | 1, 306  | 1, 528                      | 2, 378  | 3, 906  | 437  | 459     | 896     |                                    |
| Rhode Island . . . . .                 | 322                             | 228     | 550     | 68                 | 34      | 102     | 125                         | 231     | 356     | 62   | 52      | 114     | 30                                 |
| Connecticut . . . . .                  | 408                             | 244     | 652     | 332                | 90      | 422     | 261                         | 461     | 722     | 121  | 85      | 206     | 2, 870                             |
| New York . . . . .                     | 1, 062                          | 723     | 1, 785  | 1, 195             | 1, 101  | 2, 296  | 1, 344                      | 2, 171  | 3, 515  | 456  | 395     | 851     | 534                                |
| New Jersey . . . . .                   | 236                             | 164     | 400     | 226                | 162     | 388     | 537                         | 640     | 977     | 91   | 47      | 138     | 21                                 |
| Pennsylvania . . . . .                 | 466                             | 321     | 787     | 592                | 314     | 906     | 1, 162                      | 2, 265  | 3, 427  | 307  | 213     | 520     | 24                                 |
| South Atlantic Divi-<br>sion:          |                                 |         |         |                    |         |         |                             |         |         |  |         |         |                                    |
| Delaware . . . . .                     | 3                               | 4       | 7       | 5                  | 0       | 5       | 59                          | 71      | 130     | 8  | 3       | 11      |                                    |
| Maryland . . . . .                     | 67                              | 45      | 112     | 14                 | 1       | 15      | 95                          | 280     | 375     | 36   | 12      | 48      |                                    |
| Dist. Columbia . . . . .               | 28                              | 28      | 56      | 17                 | 9       | 26      | 139                         | 261     | 400     | 12   | 6       | 18      | 375                                |
| Virginia . . . . .                     | 200                             | 156     | 356     | 41                 | 32      | 73      | 125                         | 225     | 350     | 44   | 53      | 97      |                                    |
| West Virginia . . . . .                | 52                              | 35      | 87      | 13                 | 8       | 21      | 32                          | 118     | 150     | 10   | 6       | 16      |                                    |
| North Carolina . . . . .               | 76                              | 95      | 171     | 13                 | 5       | 18      | 41                          | 42      | 83      | 22   | 26      | 48      |                                    |
| South Carolina . . . . .               | 186                             | 195     | 381     | 64                 | 46      | 110     | 50                          | 80      | 130     | 27   | 40      | 67      |                                    |
| Georgia . . . . .                      | 425                             | 552     | 977     | 123                | 126     | 249     | 143                         | 345     | 488     | 86   | 190     | 276     |                                    |
| Florida . . . . .                      | 20                              | 21      | 41      | 17                 | 23      | 40      | 14                          | 26      | 40      | 8  | 6       | 14      |                                    |
| South Central Divi-<br>sion:           |                                 |         |         |                    |         |         |                             |         |         |  |         |         |                                    |
| Kentucky . . . . .                     | 172                             | 154     | 326     | 128                | 122     | 250     | 104                         | 245     | 349     | 48   | 46      | 94      | 58                                 |
| Tennessee . . . . .                    | 244                             | 208     | 452     | 142                | 133     | 275     | 141                         | 343     | 484     | 66   | 105     | 171     |                                    |
| Alabama . . . . .                      | 221                             | 208     | 429     | 102                | 83      | 185     | 60                          | 164     | 224     | 21   | 11      | 32      |                                    |
| Mississippi . . . . .                  | 225                             | 265     | 490     | 163                | 170     | 333     | 59                          | 105     | 164     | 53   | 88      | 141     | 28                                 |
| Louisiana . . . . .                    | 22                              | 38      | 60      | 100                | 93      | 193     | 51                          | 123     | 174     | 4  | 1       | 5       |                                    |
| Texas . . . . .                        | 478                             | 608     | 1, 086  | 307                | 262     | 569     | 156                         | 328     | 484     | 65   | 97      | 162     | 50                                 |
| Arkansas . . . . .                     | 231                             | 269     | 500     | 77                 | 94      | 171     | 71                          | 135     | 206     | 30   | 53      | 83      |                                    |
| Oklahoma . . . . .                     | 28                              | 29      | 57      | 35                 | 34      | 69      | 3                           | 6       | 9       | 2  | 4       | 6       |                                    |
| Indian Territory . . . . .             | 4                               | 7       | 11      | 2                  | 3       | 5       | 4                           | 3       | 7       |  |         |         | 36                                 |
| North Central Divi-<br>sion:           |                                 |         |         |                    |         |         |                             |         |         |  |         |         |                                    |
| Ohio . . . . .                         | 874                             | 883     | 1, 757  | 754                | 764     | 1, 518  | 1, 516                      | 2, 720  | 4, 266  | 422  | 487     | 909     | 434                                |
| Indiana . . . . .                      | 435                             | 565     | 1, 000  | 285                | 222     | 507     | 753                         | 1, 282  | 2, 035  | 260  | 342     | 602     |                                    |
| Illinois . . . . .                     | 565                             | 751     | 1, 316  | 792                | 831     | 1, 623  | 1, 063                      | 2, 345  | 3, 408  | 385  | 505     | 890     | 44                                 |
| Michigan . . . . .                     | 252                             | 284     | 536     | 789                | 842     | 1, 631  | 866                         | 1, 374  | 2, 240  | 372  | 466     | 838     | 10                                 |
| Wisconsin . . . . .                    | 171                             | 236     | 407     | 379                | 363     | 742     | 574                         | 997     | 1, 571  | 220  | 255     | 475     | 89                                 |
| Minnesota . . . . .                    | 225                             | 239     | 464     | 965                | 984     | 1, 949  | 415                         | 711     | 1, 126  | 256  | 384     | 640     | 121                                |
| Iowa . . . . .                         | 405                             | 506     | 911     | 468                | 571     | 1, 039  | 1, 034                      | 1, 749  | 2, 783  | 358  | 500     | 858     | 261                                |
| Missouri . . . . .                     | 403                             | 593     | 996     | 260                | 301     | 561     | 451                         | 1, 047  | 1, 498  | 139  | 218     | 357     |                                    |
| North Dakota . . . . .                 | 9                               | 13      | 22      | 43                 | 44      | 87      | 27                          | 46      | 73      | 17   | 22      | 39      |                                    |
| South Dakota . . . . .                 | 71                              | 94      | 165     | 20                 | 25      | 45      | 50                          | 81      | 131     | 18   | 32      | 50      | 36                                 |
| Nebraska . . . . .                     | 416                             | 625     | 1, 041  | 248                | 329     | 577     | 384                         | 675     | 1, 059  | 182  | 272     | 454     | 185                                |
| Kansas . . . . .                       | 377                             | 647     | 1, 024  | 228                | 292     | 520     | 435                         | 840     | 1, 275  | 203  | 340     | 543     | 30                                 |
| Western Division:                      |                                 |         |         |                    |         |         |                             |         |         |  |         |         |                                    |
| Montana . . . . .                      | 32                              | 66      | 98      | 49                 | 38      | 87      | 33                          | 56      | 89      | 18   | 18      | 36      | 40                                 |
| Wyoming . . . . .                      |                                 |         |         |                    |         |         | 8                           | 8       | 16      | 2  | 0       | 2       |                                    |
| Colorado . . . . .                     | 153                             | 195     | 348     | 306                | 350     | 656     | 174                         | 251     | 425     | 73   | 97      | 170     | 95                                 |
| New Mexico . . . . .                   | 7                               | 10      | 17      | 3                  | 0       | 3       | 2                           | 8       | 10      | 0  | 0       | 0       |                                    |
| Arizona . . . . .                      | 2                               | 6       | 8       |                    |         |         | 10                          | 13      | 23      | 0  | 0       | 0       |                                    |
| Utah . . . . .                         | 34                              | 44      | 78      | 29                 | 18      | 47      | 14                          | 35      | 49      | 8  | 20      | 28      |                                    |
| Nevada . . . . .                       | 9                               | 14      | 23      | 1                  | 8       | 9       | 10                          | 45      | 55      | 6  | 14      | 20      |                                    |
| Idaho . . . . .                        | 6                               | 10      | 16      |                    |         |         | 9                           | 22      | 31      | 6  | 11      | 17      |                                    |
| Washington . . . . .                   | 46                              | 76      | 122     | 66                 | 79      | 145     | 86                          | 123     | 209     | 30   | 34      | 64      | 77                                 |
| Oregon . . . . .                       | 28                              | 29      | 57      | 35                 | 34      | 69      | 72                          | 92      | 164     | 13   | 14      | 27      |                                    |
| California . . . . .                   | 226                             | 190     | 416     | 557                | 499     | 1, 056  | 453                         | 678     | 1, 131  | 214  | 233     | 447     |                                    |

TABLE 3.—Summary of statistics of public high schools.

## STUDENTS PURSUING CERTAIN STUDIES.

| State or Territory.        | Latin. |         |         | Greek. |         |        | French. |         |        | German. |         |        |
|----------------------------|--------|---------|---------|--------|---------|--------|---------|---------|--------|---------|---------|--------|
|                            | Male.  | Female. | Total.  | Male.  | Female. | Total. | Male.   | Female. | Total. | Male.   | Female. | Total. |
| United States.....         | 60,777 | 93,173  | 153,950 | 6,361  | 4,498   | 10,859 | 7,902   | 14,911  | 22,813 | 15,235  | 24,666  | 39,901 |
| North Atlantic Division... | 19,016 | 27,719  | 46,735  | 3,962  | 2,778   | 6,740  | 5,935   | 9,635   | 15,570 | 5,808   | 9,004   | 14,812 |
| South Atlantic Division... | 5,134  | 7,836   | 12,970  | 462    | 185     | 647    | 520     | 1,429   | 1,949  | 831     | 1,844   | 2,675  |
| South Central Division...  | 5,324  | 8,281   | 13,605  | 485    | 126     | 611    | 369     | 480     | 849    | 561     | 622     | 1,183  |
| North Central Division...  | 27,708 | 44,237  | 71,945  | 1,207  | 1,145   | 2,352  | 847     | 2,851   | 3,698  | 7,098   | 11,665  | 18,763 |
| Western Division.....      | 3,595  | 5,100   | 8,695   | 245    | 264     | 509    | 231     | 516     | 747    | 937     | 1,531   | 2,468  |
| North Atlantic Division:   |        |         |         |        |         |        |         |         |        |         |         |        |
| Maine.....                 | 1,309  | 2,046   | 3,355   | 512    | 409     | 921    | 306     | 712     | 1,018  | 40      | 45      | 85     |
| New Hampshire.....         | 666    | 1,063   | 1,729   | 130    | 131     | 261    | 351     | 556     | 907    | 6       | 24      | 30     |
| Vermont.....               | 484    | 679     | 1,163   | 126    | 71      | 197    | 70      | 155     | 225    | 30      | 60      | 90     |
| Massachusetts.....         | 5,679  | 8,127   | 13,806  | 1,425  | 1,176   | 2,601  | 4,211   | 5,732   | 9,943  | 817     | 1,652   | 2,469  |
| Rhode Island.....          | 614    | 753     | 1,367   | 165    | 122     | 287    | 180     | 362     | 542    | 70      | 175     | 245    |
| Connecticut.....           | 1,497  | 1,753   | 3,250   | 334    | 175     | 509    | 219     | 546     | 765    | 542     | 614     | 1,156  |
| New York.....              | 4,161  | 5,220   | 9,381   | 723    | 425     | 1,148  | 413     | 1,127   | 1,540  | 2,130   | 3,369   | 5,499  |
| New Jersey.....            | 1,077  | 1,237   | 2,314   | 164    | 93      | 257    | 73      | 168     | 241    | 713     | 1,087   | 1,800  |
| Pennsylvania.....          | 3,529  | 6,841   | 10,370  | 383    | 176     | 559    | 112     | 277     | 389    | 1,460   | 1,978   | 3,438  |
| South Atlantic Division:   |        |         |         |        |         |        |         |         |        |         |         |        |
| Delaware.....              | 322    | 476     | 798     | .....  | .....   | .....  | .....   | 1       | 1      | .....   | .....   | .....  |
| Maryland.....              | 950    | 1,134   | 2,084   | 120    | 29      | 149    | 183     | 58      | 241    | 375     | 611     | 986    |
| District of Columbia...    | 461    | 673     | 1,134   | 49     | 30      | 79     | 52      | 165     | 217    | 153     | 524     | 677    |
| Virginia.....              | 942    | 1,487   | 2,429   | 19     | 23      | 42     | 72      | 291     | 363    | 255     | 619     | 874    |
| West Virginia.....         | 95     | 217     | 312     | .....  | .....   | .....  | 2       | 5       | 7      | .....   | .....   | .....  |
| North Carolina.....        | 349    | 444     | 793     | 4      | 0       | 4      | 8       | 6       | 14     | 9       | 15      | 24     |
| South Carolina.....        | 414    | 587     | 1,001   | 20     | 13      | 33     | 43      | 96      | 139    | 17      | 17      | 34     |
| Georgia.....               | 1,351  | 2,431   | 3,782   | 249    | 90      | 339    | 147     | 784     | 931    | 16      | 41      | 57     |
| Florida.....               | 250    | 387     | 637     | 1      | .....   | 1      | 13      | 23      | 36     | 6       | 17      | 23     |
| South Central Division:    |        |         |         |        |         |        |         |         |        |         |         |        |
| Kentucky.....              | 958    | 1,611   | 2,569   | 197    | 24      | 221    | 6       | 32      | 38     | 266     | 198     | 464    |
| Tennessee.....             | 752    | 1,379   | 2,131   | 35     | 9       | 44     | 12      | 10      | 22     | 40      | 14      | 54     |
| Alabama.....               | 515    | 927     | 1,442   | 119    | 10      | 129    | 27      | 146     | 173    | 31      | 68      | 99     |
| Mississippi.....           | 561    | 742     | 1,303   | 38     | 24      | 62     | 6       | 23      | 29     | 32      | 32      | 64     |
| Louisiana.....             | 454    | 328     | 782     | 2      | 10      | 12     | 272     | 193     | 465    | .....   | .....   | .....  |
| Texas.....                 | 1,589  | 2,634   | 4,243   | 81     | 37      | 118    | 19      | 41      | 60     | 146     | 237     | 383    |
| Arkansas.....              | 406    | 563     | 969     | 10     | 12      | 22     | 25      | 31      | 56     | 37      | 59      | 96     |
| Oklahoma.....              | 31     | 59      | 90      | .....  | .....   | .....  | 2       | 4       | 6      | 9       | 14      | 23     |
| Indian Territory.....      | 64     | 18      | 82      | 3      | .....   | 3      | .....   | .....   | .....  | .....   | .....   | .....  |
| North Central Division:    |        |         |         |        |         |        |         |         |        |         |         |        |
| Ohio.....                  | 6,739  | 9,720   | 16,459  | 390    | 327     | 717    | 115     | 474     | 589    | 1,366   | 2,086   | 3,452  |
| Indiana.....               | 3,567  | 5,111   | 8,678   | 33     | 41      | 74     | 13      | 47      | 60     | 374     | 643     | 1,017  |
| Illinois.....              | 4,140  | 7,693   | 11,833  | 170    | 206     | 376    | 316     | 1,140   | 1,456  | 1,097   | 2,204   | 3,301  |
| Michigan.....              | 2,585  | 3,871   | 6,456   | 161    | 137     | 298    | 178     | 398     | 576    | 1,213   | 1,914   | 3,127  |
| Wisconsin.....             | 1,100  | 1,725   | 2,825   | 47     | 26      | 73     | 26      | 31      | 57     | 1,054   | 1,530   | 2,584  |
| Minnesota.....             | 1,935  | 3,024   | 4,959   | 130    | 130     | 260    | 106     | 342     | 448    | 539     | 851     | 1,390  |
| Iowa.....                  | 2,586  | 4,463   | 7,049   | 26     | 16      | 42     | .....   | 30      | 30     | 519     | 831     | 1,350  |
| Missouri.....              | 1,751  | 3,164   | 4,915   | 165    | 183     | 348    | 63      | 273     | 336    | 408     | 595     | 1,003  |
| North Dakota.....          | 182    | 229     | 411     | .....  | .....   | .....  | .....   | .....   | .....  | 2       | 3       | 5      |
| South Dakota.....          | 187    | 256     | 443     | 2      | .....   | 2      | 3       | 5       | 8      | 47      | 82      | 129    |
| Nebraska.....              | 1,353  | 2,234   | 3,587   | 55     | 39      | 94     | 18      | 97      | 115    | 199     | 382     | 581    |
| Kansas.....                | 1,583  | 2,747   | 4,330   | 28     | 40      | 68     | 9       | 14      | 23     | 280     | 544     | 824    |
| Western Division:          |        |         |         |        |         |        |         |         |        |         |         |        |
| Montana.....               | 169    | 299     | 468     | .....  | .....   | .....  | .....   | 8       | 8      | 15      | 43      | 58     |
| Wyoming.....               | 43     | 66      | 109     | .....  | .....   | .....  | .....   | .....   | .....  | .....   | .....   | .....  |
| Colorado.....              | 768    | 1,304   | 2,072   | 99     | 123     | 222    | 62      | 194     | 256    | 355     | 595     | 950    |
| New Mexico.....            | 22     | 33      | 55      | .....  | .....   | .....  | .....   | .....   | .....  | .....   | .....   | .....  |
| Arizona.....               | 9      | 13      | 22      | .....  | .....   | .....  | .....   | .....   | .....  | .....   | .....   | .....  |
| Utah.....                  | 77     | 121     | 198     | 2      | 3       | 5      | 12      | 20      | 32     | 17      | 46      | 63     |
| Nevada.....                | 19     | 80      | 99      | .....  | .....   | .....  | .....   | .....   | .....  | 4       | 2       | 6      |
| Idaho.....                 | 26     | 57      | 83      | .....  | .....   | .....  | .....   | .....   | .....  | .....   | .....   | .....  |
| Washington.....            | 319    | 450     | 769     | .....  | .....   | .....  | .....   | .....   | .....  | 88      | 143     | 231    |
| Oregon.....                | 176    | 168     | 344     | .....  | .....   | .....  | .....   | .....   | .....  | 57      | 155     | 212    |
| California.....            | 1,967  | 2,509   | 4,476   | 144    | 138     | 282    | 157     | 294     | 451    | 401     | 547     | 948    |

TABLE 4.—Summary of statistics of public high schools.

## STUDENTS PURSUING CERTAIN STUDIES.

| State or Territory.        | Algebra. |         |         | Geometry. |         |        | Trigonometry. |         |        | Astronomy. |         |        |
|----------------------------|----------|---------|---------|-----------|---------|--------|---------------|---------|--------|------------|---------|--------|
|                            | Male.    | Female. | Total.  | Male.     | Female. | Total. | Male.         | Female. | Total. | Male.      | Female. | Total. |
| United States.....         | 79,524   | 110,464 | 189,988 | 36,078    | 52,624  | 88,702 | 4,160         | 4,708   | 8,868  | 6,088      | 10,682  | 16,770 |
| North Atlantic Division... | 23,292   | 32,028  | 55,320  | 12,082    | 16,191  | 28,273 | 1,078         | 833     | 1,911  | 2,291      | 4,230   | 6,521  |
| South Atlantic Division... | 5,402    | 8,113   | 13,515  | 2,563     | 4,068   | 6,631  | 680           | 874     | 1,554  | 369        | 688     | 1,057  |
| South Central Division...  | 7,959    | 10,720  | 18,679  | 3,294     | 4,781   | 8,075  | 800           | 1,142   | 1,942  | 450        | 832     | 1,282  |
| North Central Division...  | 38,322   | 53,079  | 91,401  | 15,682    | 24,023  | 39,705 | 1,365         | 1,652   | 3,017  | 2,736      | 4,546   | 7,282  |
| Western Division.....      | 4,549    | 6,524   | 11,073  | 2,457     | 3,561   | 6,018  | 257           | 207     | 464    | 242        | 386     | 628    |
| North Atlantic Division:   |          |         |         |           |         |        |               |         |        |            |         |        |
| Maine.....                 | 1,565    | 2,045   | 3,610   | 693       | 908     | 1,601  | 30            | 7       | 37     | 254        | 352     | 606    |
| New Hampshire.....         | 687      | 841     | 1,528   | 382       | 530     | 912    | 27            | 23      | 50     | 111        | 131     | 242    |
| Vermont.....               | 506      | 638     | 1,144   | 213       | 327     | 540    | .....         | .....   | .....  | 106        | 133     | 239    |
| Massachusetts.....         | 5,787    | 6,423   | 12,210  | 3,753     | 4,160   | 7,913  | 104           | 53      | 157    | 691        | 1,096   | 1,787  |
| Rhode Island.....          | 538      | 730     | 1,268   | 187       | 317     | 504    | 31            | 3       | 34     | 49         | 139     | 188    |
| Connecticut.....           | 1,375    | 1,569   | 2,944   | 741       | 899     | 1,640  | 77            | 27      | 104    | 96         | 230     | 326    |
| New York.....              | 5,227    | 7,252   | 12,479  | 2,658     | 3,809   | 6,467  | 291           | 300     | 591    | 568        | 848     | 1,416  |
| New Jersey.....            | 1,768    | 3,115   | 4,883   | 615       | 1,069   | 1,684  | 79            | 104     | 183    | 127        | 365     | 492    |
| Pennsylvania.....          | 5,839    | 9,415   | 15,254  | 2,840     | 4,172   | 7,012  | 439           | 316     | 755    | 289        | 936     | 1,225  |
| South Atlantic Division:   |          |         |         |           |         |        |               |         |        |            |         |        |
| Delaware.....              | 259      | 408     | 667     | 121       | 174     | 295    | 34            | .....   | 34     | 4          | 7       | 11     |
| Maryland.....              | 844      | 1,578   | 2,422   | 862       | 1,429   | 2,291  | 174           | 306     | 480    | 112        | 255     | 367    |
| District of Columbia...    | 302      | 533     | 835     | 182       | 303     | 485    | 59            | 18      | 77     | .....      | .....   | .....  |
| Virginia.....              | 1,082    | 1,330   | 2,412   | 276       | 562     | 838    | 70            | 123     | 193    | 15         | 17      | 32     |
| West Virginia.....         | 253      | 382     | 635     | 92        | 203     | 295    | 4             | 17      | 21     | 6          | 11      | 17     |
| North Carolina.....        | 315      | 392     | 707     | 63        | 87      | 150    | 1             | .....   | 1      | 29         | 40      | 69     |
| South Carolina.....        | 497      | 643     | 1,140   | 112       | 147     | 259    | 9             | 10      | 19     | 10         | 16      | 26     |
| Georgia.....               | 1,597    | 2,489   | 4,086   | 720       | 1,000   | 1,720  | 240           | 345     | 585    | 113        | 279     | 392    |
| Florida.....               | 253      | 358     | 611     | 135       | 163     | 298    | 69            | 55      | 124    | 80         | 63      | 143    |
| South Central Division:    |          |         |         |           |         |        |               |         |        |            |         |        |
| Kentucky.....              | 1,244    | 1,608   | 2,852   | 568       | 765     | 1,333  | 212           | 239     | 451    | 67         | 145     | 212    |
| Tennessee.....             | 1,284    | 1,691   | 2,975   | 432       | 684     | 1,116  | 62            | 77      | 139    | 37         | 55      | 92     |
| Alabama.....               | 689      | 1,000   | 1,689   | 368       | 546     | 914    | 169           | 350     | 519    | 132        | 303     | 435    |
| Mississippi.....           | 778      | 1,037   | 1,815   | 252       | 278     | 530    | 77            | 82      | 159    | 42         | 58      | 100    |
| Louisiana.....             | 457      | 444     | 901     | 96        | 172     | 268    | 20            | 12      | 32     | 7          | 11      | 18     |
| Texas.....                 | 2,655    | 3,911   | 6,566   | 1,294     | 2,034   | 3,328  | 213           | 315     | 528    | 136        | 239     | 375    |
| Arkansas.....              | 692      | 907     | 1,599   | 229       | 263     | 492    | 39            | 64      | 103    | 19         | 21      | 40     |
| Oklahoma.....              | 57       | 90      | 147     | 20        | 27      | 47     | .....         | 3       | 3      | .....      | .....   | .....  |
| Indian Territory.....      | 103      | 32      | 135     | 35        | 12      | 47     | 8             | .....   | 8      | 10         | .....   | 10     |
| North Central Division:    |          |         |         |           |         |        |               |         |        |            |         |        |
| Ohio.....                  | 8,327    | 11,004  | 19,331  | 3,507     | 5,046   | 8,553  | 589           | 752     | 1,341  | 612        | 932     | 1,544  |
| Indiana.....               | 3,895    | 5,381   | 9,276   | 1,551     | 2,217   | 3,768  | 86            | 107     | 193    | 169        | 283     | 452    |
| Illinois.....              | 5,598    | 7,994   | 13,592  | 2,329     | 4,072   | 6,401  | 221           | 215     | 436    | 583        | 1,113   | 1,696  |
| Michigan.....              | 4,323    | 6,229   | 10,552  | 1,577     | 2,449   | 4,026  | 80            | 87      | 167    | 338        | 483     | 821    |
| Wisconsin.....             | 2,635    | 3,225   | 5,860   | 1,082     | 1,574   | 2,656  | 22            | 17      | 39     | 39         | 73      | 112    |
| Minnesota.....             | 1,951    | 2,556   | 4,507   | 1,053     | 1,523   | 2,576  | 28            | 1       | 29     | 109        | 203     | 312    |
| Iowa.....                  | 4,253    | 5,965   | 10,218  | 1,713     | 2,636   | 4,349  | 77            | 111     | 188    | 538        | 851     | 1,389  |
| Missouri.....              | 2,966    | 4,206   | 7,172   | 1,081     | 1,655   | 2,736  | 145           | 173     | 318    | 167        | 233     | 400    |
| North Dakota.....          | 201      | 186     | 387     | 102       | 96      | 198    | 2             | 3       | 5      | 24         | 35      | 59     |
| South Dakota.....          | 249      | 328     | 577     | 109       | 141     | 250    | 8             | 14      | 22     | 31         | 36      | 67     |
| Nebraska.....              | 2,018    | 3,049   | 5,067   | 793       | 1,299   | 2,092  | 69            | 105     | 174    | 53         | 124     | 177    |
| Kansas.....                | 1,906    | 2,956   | 4,862   | 785       | 1,315   | 2,100  | 38            | 67      | 105    | 73         | 180     | 253    |
| Western Division:          |          |         |         |           |         |        |               |         |        |            |         |        |
| Montana.....               | 180      | 279     | 459     | 66        | 83      | 149    | 4             | 1       | 5      | 17         | 19      | 36     |
| Wyoming.....               | 35       | 45      | 80      | 35        | 53      | 88     | 6             | 7       | 13     | 3          | 5       | 8      |
| Colorado.....              | 789      | 1,077   | 1,866   | 446       | 677     | 1,123  | 70            | 81      | 151    | 71         | 138     | 209    |
| New Mexico.....            | 42       | 57      | 99      | 9         | 10      | 19     | .....         | .....   | .....  | .....      | .....   | .....  |
| Arizona.....               | 44       | 87      | 131     | 15        | 18      | 33     | 3             | .....   | 3      | 2          | 4       | 6      |
| Utah.....                  | 126      | 222     | 348     | 65        | 112     | 177    | 14            | 13      | 27     | 8          | 13      | 21     |
| Nevada.....                | 98       | 178     | 276     | 40        | 101     | 141    | 2             | .....   | 2      | .....      | .....   | .....  |
| Idaho.....                 | 52       | 76      | 128     | 27        | 58      | 85     | .....         | .....   | .....  | 2          | 13      | 15     |
| Washington.....            | 518      | 667     | 1,185   | 224       | 257     | 481    | 14            | 16      | 30     | 26         | 36      | 62     |
| Oregon.....                | 428      | 616     | 1,044   | 134       | 176     | 310    | 27            | 15      | 42     | 12         | 23      | 35     |
| California.....            | 2,237    | 3,220   | 5,457   | 1,396     | 2,016   | 3,412  | 117           | 74      | 191    | 101        | 135     | 236    |



TABLE 5.—*Summary of statistics of public high schools.*

## STUDENTS PURSUING CERTAIN STUDIES.

| State or Territory.        | Physics. |         |        | Chemistry. |         |        | Physical geog-<br>raphy. |         |        | Geology. |         |        |
|----------------------------|----------|---------|--------|------------|---------|--------|--------------------------|---------|--------|----------|---------|--------|
|                            | Male.    | Female. | Total. | Male.      | Female. | Total. | Male.                    | Female. | Total. | Male.    | Female. | Total. |
| United States.....         | 33,450   | 46,270  | 79,720 | 13,236     | 18,788  | 32,024 | 35,293                   | 48,349  | 83,642 | 7,182    | 10,306  | 17,488 |
| North Atlantic Division..  | 10,429   | 13,143  | 23,572 | 4,908      | 6,308   | 11,216 | 9,850                    | 13,644  | 23,494 | 2,950    | 3,903   | 6,853  |
| South Atlantic Division..  | 2,583    | 3,654   | 6,237  | 764        | 1,001   | 1,765  | 2,271                    | 3,057   | 5,328  | 246      | 428     | 674    |
| South Central Division...  | 3,533    | 4,879   | 8,412  | 1,008      | 1,661   | 2,669  | 3,621                    | 4,736   | 8,357  | 895      | 1,295   | 2,190  |
| North Central Division.... | 14,963   | 21,679  | 36,642 | 5,542      | 8,157   | 13,699 | 18,371                   | 25,238  | 43,609 | 2,723    | 4,205   | 6,928  |
| Western Division.....      | 1,942    | 2,915   | 4,857  | 1,014      | 1,661   | 2,675  | 1,180                    | 1,674   | 2,854  | 368      | 475     | 843    |
| North Atlantic Division:   |          |         |        |            |         |        |                          |         |        |          |         |        |
| Maine.....                 | 542      | 777     | 1,319  | 298        | 370     | 668    | 562                      | 769     | 1,331  | 253      | 360     | 613    |
| New Hampshire.....         | 371      | 406     | 777    | 193        | 201     | 394    | 204                      | 206     | 410    | 74       | 121     | 195    |
| Vermont.....               | 205      | 199     | 404    | 154        | 126     | 280    | 257                      | 336     | 593    | 111      | 141     | 252    |
| Massachusetts.....         | 2,068    | 3,312   | 6,280  | 1,608      | 1,951   | 3,559  | 1,311                    | 1,368   | 2,679  | 596      | 887     | 1,483  |
| Rhode Island.....          | 115      | 368     | 483    | 45         | 186     | 231    | 65                       | 101     | 166    | 41       | 101     | 142    |
| Connecticut.....           | 623      | 727     | 1,350  | 244        | 388     | 632    | 470                      | 584     | 1,054  | 137      | 279     | 416    |
| New York.....              | 2,262    | 2,108   | 4,370  | 1,153      | 1,026   | 2,179  | 2,902                    | 4,436   | 7,398  | 891      | 1,148   | 2,039  |
| New Jersey.....            | 769      | 1,173   | 1,942  | 260        | 400     | 660    | 820                      | 1,116   | 1,936  | 124      | 199     | 323    |
| Pennsylvania.....          | 2,574    | 4,073   | 6,647  | 953        | 1,660   | 2,613  | 3,199                    | 4,728   | 7,927  | 723      | 667     | 1,390  |
| South Atlantic Division:   |          |         |        |            |         |        |                          |         |        |          |         |        |
| Delaware.....              | 151      | 183     | 334    | 97         | 96      | 193    | 163                      | 220     | 383    | .....    | .....   | .....  |
| Maryland.....              | 723      | 1,025   | 1,748  | 192        | 60      | 252    | 281                      | 387     | 668    | 3        | 9       | 12     |
| District of Columbia..     | 179      | 261     | 440    | 93         | 102     | 195    | .....                    | .....   | .....  | 7        | 27      | 34     |
| Virginia.....              | 453      | 549     | 1,002  | 110        | 232     | 342    | 607                      | 697     | 1,304  | 55       | 85      | 140    |
| West Virginia.....         | 77       | 151     | 228    | 6          | 43      | 49     | 133                      | 224     | 362    | 7        | 18      | 25     |
| North Carolina.....        | 87       | 102     | 189    | 18         | 25      | 43     | 124                      | 112     | 236    | 40       | 54      | 94     |
| South Carolina.....        | 152      | 226     | 378    | 5          | 9       | 14     | 221                      | 326     | 547    | 11       | 22      | 33     |
| Georgia.....               | 603      | 971     | 1,574  | 155        | 346     | 501    | 516                      | 858     | 1,374  | 120      | 208     | 328    |
| Florida.....               | 158      | 186     | 344    | 88         | 88      | 176    | 221                      | 233     | 454    | 3        | 5       | 8      |
| South Central Division:    |          |         |        |            |         |        |                          |         |        |          |         |        |
| Kentucky.....              | 480      | 582     | 1,062  | 214        | 311     | 525    | 326                      | 450     | 776    | 40       | 92      | 132    |
| Tennessee.....             | 440      | 666     | 1,106  | 105        | 258     | 363    | 390                      | 631     | 1,021  | 243      | 280     | 523    |
| Alabama.....               | 365      | 565     | 930    | 165        | 361     | 526    | 407                      | 600     | 1,007  | 154      | 318     | 472    |
| Mississippi.....           | 568      | 731     | 1,299  | 97         | 137     | 234    | 446                      | 521     | 967    | 96       | 109     | 205    |
| Louisiana.....             | 184      | 192     | 376    | 77         | 81      | 158    | 281                      | 199     | 480    | .....    | .....   | .....  |
| Texas.....                 | 1,219    | 1,790   | 3,009  | 241        | 392     | 633    | 1,245                    | 1,710   | 2,955  | 280      | 413     | 693    |
| Arkansas.....              | 207      | 305     | 512    | 66         | 106     | 172    | 425                      | 573     | 998    | 53       | 72      | 125    |
| Oklahoma.....              | 23       | 34      | 57     | 12         | 15      | 27     | 24                       | 31      | 55     | 10       | 11      | 21     |
| Indian Territory.....      | 47       | 14      | 61     | 31         | .....   | 31     | 77                       | 21      | 98     | 19       | .....   | 19     |
| North Central Division:    |          |         |        |            |         |        |                          |         |        |          |         |        |
| Ohio.....                  | 2,857    | 3,900   | 6,757  | 1,091      | 1,641   | 2,732  | 3,729                    | 4,919   | 8,648  | 415      | 574     | 989    |
| Indiana.....               | 1,604    | 2,252   | 3,856  | 575        | 791     | 1,366  | 2,005                    | 2,705   | 4,710  | 248      | 403     | 651    |
| Illinois.....              | 2,330    | 3,894   | 6,224  | 1,125      | 1,859   | 2,984  | 2,003                    | 2,946   | 4,949  | 448      | 885     | 1,333  |
| Michigan.....              | 1,734    | 2,486   | 4,220  | 733        | 993     | 1,726  | 1,607                    | 2,303   | 3,910  | 333      | 459     | 792    |
| Wisconsin.....             | 973      | 1,244   | 2,217  | 178        | 208     | 386    | 1,975                    | 2,422   | 4,397  | 85       | 123     | 208    |
| Minnesota.....             | 697      | 819     | 1,516  | 402        | 565     | 967    | 868                      | 1,149   | 2,017  | 126      | 143     | 269    |
| Iowa.....                  | 1,713    | 2,538   | 4,251  | 429        | 609     | 1,038  | 2,607                    | 3,499   | 6,106  | 456      | 745     | 1,201  |
| Missouri.....              | 1,189    | 1,689   | 2,878  | 385        | 603     | 988    | 1,080                    | 1,596   | 2,676  | 261      | 347     | 608    |
| North Dakota.....          | 104      | 90      | 194    | 18         | 39      | 57     | 118                      | 125     | 243    | 18       | 36      | 54     |
| South Dakota.....          | 120      | 154     | 274    | 61         | 76      | 137    | 183                      | 270     | 453    | 37       | 47      | 84     |
| Nebraska.....              | 748      | 1,199   | 1,947  | 356        | 489     | 845    | 1,123                    | 1,577   | 2,700  | 140      | 206     | 346    |
| Kansas.....                | 894      | 1,414   | 2,308  | 189        | 284     | 473    | 1,073                    | 1,727   | 2,800  | 156      | 237     | 393    |
| Western Division:          |          |         |        |            |         |        |                          |         |        |          |         |        |
| Montana.....               | 112      | 156     | 268    | 53         | 59      | 112    | 76                       | 110     | 186    | 46       | 49      | 95     |
| Wyoming.....               | 13       | 19      | 32     | 4          | 7       | 11     | 29                       | 51      | 80     | 5        | 7       | 12     |
| Colorado.....              | 368      | 522     | 890    | 179        | 335     | 514    | 317                      | 401     | 718    | 144      | 213     | 357    |
| New Mexico.....            | 9        | 19      | 28     | 3          | 3       | 6      | 30                       | 32      | 62     | 2        | 2       | 4      |
| Arizona.....               | 24       | 52      | 76     | 2          | 4       | 6      | 16                       | 30      | 46     | 7        | 13      | 20     |
| Utah.....                  | 24       | 44      | 68     | 8          | 5       | 13     | 29                       | 44      | 73     | 14       | 12      | 26     |
| Nevada.....                | 39       | 91      | 130    | 34         | 74      | 108    | 61                       | 92      | 153    | .....    | .....   | .....  |
| Idaho.....                 | 36       | 65      | 101    | .....      | .....   | .....  | 55                       | 96      | 151    | 3        | 6       | 9      |
| Washington.....            | 222      | 306     | 528    | 63         | 69      | 132    | 224                      | 364     | 588    | 62       | 83      | 145    |
| Oregon.....                | 151      | 187     | 338    | 63         | 79      | 142    | 178                      | 226     | 404    | 20       | 11      | 31     |
| California.....            | 944      | 1,454   | 2,398  | 605        | 1,026   | 1,631  | 165                      | 228     | 393    | 65       | 79      | 144    |



TABLE 6.—Summary of statistics of public high schools.

## STUDENTS PURSUING CERTAIN STUDIES.

| State or Territory.       | Physiology. |         |          | Psychology. |         |        | Rhetoric. |         |          | History. |         |          |
|---------------------------|-------------|---------|----------|-------------|---------|--------|-----------|---------|----------|----------|---------|----------|
|                           | Male.       | Female. | Total.   | Male.       | Female. | Total. | Male.     | Female. | Total.   | Male.    | Female. | Total.   |
| United States.....        | 44, 274     | 60, 588 | 104, 862 | 3, 407      | 6, 199  | 9, 606 | 45, 429   | 66, 776 | 112, 205 | 47, 662  | 72, 539 | 120, 201 |
| North Atlantic Division:  | 12, 876     | 18, 192 | 31, 068  | 479         | 1, 203  | 1, 682 | 12, 776   | 17, 099 | 29, 875  | 15, 178  | 23, 054 | 38, 232  |
| South Atlantic Division.. | 2, 535      | 3, 855  | 6, 390   | 257         | 416     | 673    | 3, 053    | 4, 401  | 7, 454   | 3, 871   | 6, 085  | 9, 956   |
| South Central Division..  | 4, 942      | 6, 044  | 10, 986  | 633         | 987     | 1, 620 | 4, 335    | 6, 620  | 10, 955  | 4, 719   | 7, 100  | 11, 819  |
| North Central Division..  | 22, 601     | 30, 667 | 53, 268  | 1, 895      | 3, 359  | 5, 254 | 22, 080   | 33, 583 | 55, 663  | 20, 255  | 30, 742 | 50, 997  |
| Western Division .....    | 1, 320      | 1, 830  | 3, 150   | 143         | 234     | 377    | 3, 185    | 5, 073  | 8, 258   | 3, 699   | 5, 558  | 9, 107   |
| North Atlantic Division:  |             |         |          |             |         |        |           |         |          |          |         |          |
| Maine.....                | 483         | 667     | 1, 150   | 68          | 111     | 179    | 747       | 1, 064  | 1, 811   | 922      | 1, 219  | 2, 141   |
| New Hampshire.....        | 269         | 334     | 603      | 6           | 21      | 27     | 413       | 528     | 941      | 413      | 555     | 978      |
| Vermont.....              | 190         | 257     | 427      | 27          | 43      | 70     | 335       | 430     | 765      | 378      | 525     | 903      |
| Massachusetts.....        | 2, 157      | 2, 733  | 4, 890   | 45          | 69      | 114    | 4, 244    | 5, 234  | 9, 478   | 5, 592   | 7, 031  | 12, 623  |
| Rhode Island.....         | 43          | 65      | 108      | 9           | 90      | 99     | 203       | 245     | 448      | 537      | 753     | 1, 290   |
| Connecticut.....          | 563         | 728     | 1, 291   | 13          | 25      | 38     | 653       | 960     | 1, 613   | 771      | 1, 167  | 1, 938   |
| New York.....             | 3, 888      | 5, 378  | 9, 266   | 128         | 427     | 555    | 2, 420    | 3, 672  | 6, 092   | 2, 896   | 5, 054  | 7, 950   |
| New Jersey.....           | 1, 294      | 1, 731  | 3, 025   | 17          | 70      | 87     | 816       | 1, 451  | 2, 267   | 861      | 1, 433  | 2, 294   |
| Pennsylvania.....         | 3, 989      | 6, 219  | 10, 308  | 166         | 347     | 513    | 2, 945    | 3, 515  | 6, 460   | 2, 808   | 5, 307  | 8, 115   |
| South Atlantic Division:  |             |         |          |             |         |        |           |         |          |          |         |          |
| Delaware.....             | 208         | 295     | 503      | .....       | .....   | .....  | 138       | 186     | 324      | 161      | 229     | 390      |
| Maryland.....             | 348         | 896     | 1, 244   | 68          | 147     | 215    | 447       | 408     | 855      | 821      | 1, 286  | 2, 107   |
| District of Columbia..... | .....       | .....   | .....    | .....       | .....   | .....  | 267       | 446     | 713      | 387      | 847     | 1, 234   |
| Virginia.....             | 642         | 770     | 1, 412   | 6           | 63      | 69     | 660       | 990     | 1, 650   | 787      | 1, 223  | 2, 010   |
| West Virginia.....        | 140         | 193     | 333      | 19          | 19      | 38     | 159       | 310     | 469      | 185      | 309     | 494      |
| North Carolina.....       | 222         | 277     | 499      | 20          | 14      | 34     | 106       | 134     | 240      | 220      | 327     | 547      |
| South Carolina.....       | 173         | 237     | 410      | 14          | 19      | 33     | 244       | 408     | 652      | 308      | 461     | 769      |
| Georgia.....              | 555         | 902     | 1, 457   | 108         | 109     | 217    | 835       | 1, 256  | 2, 091   | 792      | 1, 118  | 1, 910   |
| Florida.....              | 247         | 285     | 532      | 22          | 45      | 67     | 197       | 263     | 460      | 210      | 285     | 495      |
| South Central Division:   |             |         |          |             |         |        |           |         |          |          |         |          |
| Kentucky.....             | 629         | 643     | 1, 272   | 112         | 177     | 289    | 752       | 1, 305  | 2, 057   | 642      | 1, 280  | 1, 922   |
| Tennessee.....            | 580         | 710     | 1, 290   | 29          | 57      | 86     | 584       | 869     | 1, 453   | 689      | 1, 100  | 1, 789   |
| Alabama.....              | 575         | 793     | 1, 368   | 153         | 287     | 440    | 509       | 801     | 1, 310   | 448      | 721     | 1, 169   |
| Mississippi.....          | 698         | 779     | 1, 477   | 11          | 7       | 18     | 488       | 643     | 1, 131   | 551      | 732     | 1, 283   |
| Louisiana.....            | 175         | 229     | 404      | .....       | 6       | 6      | 291       | 325     | 616      | 431      | 450     | 881      |
| Texas.....                | 1, 713      | 2, 191  | 3, 904   | 237         | 368     | 605    | 1, 272    | 2, 641  | 3, 913   | 1, 450   | 2, 187  | 3, 637   |
| Arkansas.....             | 479         | 648     | 1, 127   | 79          | 75      | 154    | 381       | 591     | 972      | 420      | 559     | 979      |
| Oklahoma.....             | 22          | 28      | 50       | 6           | 10      | 16     | 23        | 37      | 60       | 20       | 32      | 52       |
| Indian Territory.....     | 71          | 23      | 94       | 6           | .....   | 6      | 25        | 8       | 43       | 68       | 39      | 107      |
| North Central Division:   |             |         |          |             |         |        |           |         |          |          |         |          |
| Ohio.....                 | 5, 218      | 6, 782  | 12, 000  | 197         | 296     | 493    | 4, 063    | 5, 709  | 9, 772   | 3, 845   | 5, 491  | 9, 336   |
| Indiana.....              | 1, 876      | 2, 335  | 4, 211   | 298         | 460     | 758    | 2, 848    | 3, 990  | 6, 838   | 2, 056   | 3, 003  | 5, 059   |
| Illinois.....             | 2, 593      | 3, 661  | 6, 254   | 123         | 237     | 360    | 3, 719    | 5, 794  | 9, 513   | 3, 181   | 5, 328  | 8, 569   |
| Michigan.....             | 2, 453      | 3, 412  | 5, 865   | 241         | 473     | 714    | 2, 148    | 3, 337  | 5, 485   | 2, 316   | 3, 395  | 5, 711   |
| Wisconsin.....            | 1, 481      | 1, 935  | 3, 416   | 389         | 596     | 985    | 920       | 1, 292  | 2, 212   | 1, 358   | 1, 855  | 3, 213   |
| Minnesota.....            | 1, 175      | 1, 619  | 2, 824   | 14          | 21      | 35     | 907       | 1, 320  | 2, 227   | 1, 122   | 1, 721  | 2, 843   |
| Iowa.....                 | 2, 837      | 3, 839  | 6, 676   | 130         | 217     | 347    | 2, 674    | 3, 938  | 6, 612   | 2, 312   | 3, 341  | 5, 653   |
| Missouri.....             | 2, 099      | 2, 955  | 5, 054   | 299         | 659     | 958    | 2, 177    | 4, 067  | 6, 244   | 1, 624   | 2, 659  | 4, 283   |
| North Dakota.....         | 145         | 174     | 319      | 12          | 23      | 35     | 75        | 106     | 181      | 156      | 190     | 346      |
| South Dakota.....         | 199         | 269     | 468      | 2           | 4       | 6      | 171       | 201     | 372      | 197      | 201     | 338      |
| Nebraska.....             | 1, 480      | 2, 023  | 3, 503   | 28          | 42      | 70     | 1, 343    | 2, 141  | 3, 484   | 1, 084   | 1, 850  | 2, 934   |
| Kansas.....               | 1, 045      | 1, 633  | 2, 678   | 162         | 331     | 493    | 1, 035    | 1, 688  | 2, 723   | 1, 064   | 1, 708  | 2, 772   |
| Western Division:         |             |         |          |             |         |        |           |         |          |          |         |          |
| Montana.....              | 88          | 152     | 240      | 6           | 1       | 7      | 125       | 214     | 339      | 109      | 166     | 275      |
| Wyoming.....              | 36          | 43      | 79       | .....       | .....   | .....  | 40        | 74      | 114      | 42       | 56      | 98       |
| Colorado.....             | 215         | 316     | 531      | 69          | 115     | 184    | 486       | 701     | 1, 187   | 770      | 1, 161  | 1, 931   |
| New Mexico.....           | 41          | 26      | 67       | .....       | .....   | .....  | 32        | 39      | 71       | 41       | 32      | 73       |
| Arizona.....              | 16          | 30      | 46       | .....       | .....   | .....  | 7         | 16      | 23       | 25       | 58      | 83       |
| Utah.....                 | 14          | 12      | 26       | 14          | 32      | 46     | 115       | 205     | 320      | 19       | 71      | 90       |
| Nevada.....               | 48          | 72      | 120      | .....       | .....   | .....  | 50        | 119     | 169      | 55       | 139     | 194      |
| Idaho.....                | 57          | 82      | 139      | .....       | 2       | 2      | 26        | 33      | 59       | 31       | 60      | 91       |
| Washington.....           | 266         | 395     | 661      | 36          | 60      | 96     | 231       | 341     | 572      | 279      | 386     | 665      |
| Oregon.....               | 99          | 143     | 242      | 7           | 10      | 17     | 171       | 269     | 440      | 167      | 334     | 501      |
| California.....           | 440         | 559     | 999      | 11          | 14      | 25     | 1, 902    | 3, 062  | 4, 964   | 2, 101   | 3, 095  | 5, 196   |

TABLE 7.—Percentages for public high schools.

## STUDENTS AND COURSES OF STUDY..

| State or Territory.          | Total secondary students. | Per cent to total number. |          |   |  |                    | Per cent of graduates preparing for college. |
|------------------------------|---------------------------|---------------------------|----------|---|--|--------------------|--|
|                              |                           | Males.                    | Females. | College classical preparatory students. | College scientific preparatory students. | Graduates in 1895. |  |
| United States .....          | 350,099                   | 41.15                     | 58.85    | 7.53                                    | 6.22                                     | 12.11              | 28.08  |
| North Atlantic Division..... | 109,591                   | 41.99                     | 58.01    | 9.07                                    | 5.74                                     | 13.21              | 21.74  |
| South Atlantic Division..... | 20,480                    | 40.17                     | 59.83    | 10.68                                   | 2.72                                     | 10.48              | 27.73  |
| South Central Division.....  | 28,064                    | 42.05                     | 57.95    | 12.15                                   | 7.30                                     | 7.48               | 33.03  |
| North Central Division.....  | 173,158                   | 40.57                     | 59.43    | 5.56                                    | 6.23                                     | 12.40              | 31.01  |
| Western Division.....        | 18,806                    | 41.42                     | 58.58    | 6.29                                    | 11.07                                    | 11.71              | 35.17  |
| North Atlantic Division:     |                           |                           |          |   |  |                    |  |
| Maine.....                   | 6,869                     | 42.50                     | 57.50    | 12.77                                   | 3.56                                     | 11.41              | 25.51  |
| New Hampshire.....           | 3,338                     | 42.84                     | 57.16    | 8.71                                    | 8.05                                     | 12.04              | 25.62  |
| Vermont.....                 | 2,810                     | 43.81                     | 56.19    | 9.32                                    | 12.95                                    | 13.88              | 30.77  |
| Massachusetts.....           | 27,053                    | 43.56                     | 56.44    | 16.06                                   | 4.82                                     | 14.44              | 22.94  |
| Rhode Island.....            | 2,442                     | 39.11                     | 60.89    | 22.52                                   | 4.17                                     | 14.58              | 32.02  |
| Connecticut.....             | 5,785                     | 45.96                     | 54.04    | 11.01                                   | 7.29                                     | 12.50              | 28.53  |
| New York.....                | 32,489                    | 41.94                     | 58.06    | 5.49                                    | 7.06                                     | 10.82              | 24.21  |
| New Jersey.....              | 7,155                     | 39.92                     | 60.08    | 5.59                                    | 5.42                                     | 13.65              | 14.13  |
| Pennsylvania.....            | 21,650                    | 39.53                     | 60.37    | 3.63                                    | 4.18                                     | 15.83              | 15.17  |
| South Atlantic Division:     |                           |                           |          |   |  |                    |  |
| Delaware.....                | 978                       | 41.01                     | 58.99    | 0.71                                    | 0.51                                     | 13.29              | 8.46   |
| Maryland.....                | 3,305                     | 40.15                     | 59.85    | 3.38                                    | 0.45                                     | 11.35              | 12.89  |
| District of Columbia.....    | 2,269                     | 37.99                     | 62.01    | 2.46                                    | 1.14                                     | 17.63              | 4.50   |
| Virginia.....                | 3,812                     | 41.82                     | 58.18    | 9.33                                    | 1.91                                     | 9.18               | 27.71  |
| West Virginia.....           | 968                       | 36.78                     | 63.22    | 8.98                                    | 2.16                                     | 15.50              | 10.67  |
| North Carolina.....          | 954                       | 45.18                     | 54.82    | 17.92                                   | 1.88                                     | 8.70               | 57.83  |
| South Carolina.....          | 1,660                     | 44.76                     | 55.24    | 22.95                                   | 6.62                                     | 7.83               | 51.54  |
| Georgia.....                 | 5,556                     | 37.82                     | 62.18    | 17.58                                   | 4.48                                     | 8.78               | 56.56  |
| Florida.....                 | 978                       | 42.13                     | 57.87    | 4.20                                    | 4.09                                     | 4.09               | 35.00  |
| South Central Division:      |                           |                           |          |   |  |                    |  |
| Kentucky.....                | 4,118                     | 43.13                     | 56.87    | 7.91                                    | 6.07                                     | 8.47               | 26.93  |
| Tennessee.....               | 4,766                     | 41.73                     | 58.27    | 9.48                                    | 5.77                                     | 10.16              | 35.33  |
| Alabama.....                 | 2,593                     | 39.84                     | 60.16    | 16.54                                   | 7.13                                     | 8.63               | 14.29  |
| Mississippi.....             | 3,171                     | 45.35                     | 54.65    | 15.45                                   | 10.50                                    | 5.17               | 85.98  |
| Louisiana.....               | 1,418                     | 40.13                     | 59.87    | 4.23                                    | 13.61                                    | 12.27              | 2.87   |
| Texas.....                   | 9,087                     | 41.11                     | 58.89    | 11.95                                   | 6.26                                     | 5.32               | 33.47  |
| Arkansas.....                | 2,577                     | 41.99                     | 58.01    | 19.40                                   | 6.63                                     | 7.99               | 40.29  |
| Oklahoma.....                | 151                       | 38.41                     | 61.59    | 37.75                                   | 45.69                                    | 5.96               | 75.00  |
| Indian Territory.....        | 183                       | 71.04                     | 28.96    | 6.01                                    | 2.73                                     | 3.82               | 0  |
| North Central Division:      |                           |                           |          |   |  |                    |  |
| Ohio.....                    | 32,597                    | 42.18                     | 57.82    | 5.39                                    | 4.65                                     | 13.09              | 21.31  |
| Indiana.....                 | 16,512                    | 41.65                     | 58.35    | 6.05                                    | 3.07                                     | 12.32              | 29.58  |
| Illinois.....                | 26,989                    | 37.75                     | 62.25    | 4.87                                    | 6.01                                     | 12.63              | 26.11  |
| Michigan.....                | 21,236                    | 41.27                     | 58.73    | 2.52                                    | 7.68                                     | 10.43              | 37.85  |
| Wisconsin.....               | 13,072                    | 42.44                     | 57.56    | 3.11                                    | 5.67                                     | 12.02              | 30.24  |
| Minnesota.....               | 9,484                     | 40.75                     | 59.25    | 4.89                                    | 20.55                                    | 11.87              | 56.84  |
| Iowa.....                    | 19,745                    | 40.76                     | 59.24    | 4.61                                    | 5.26                                     | 14.09              | 30.83  |
| Missouri.....                | 13,301                    | 38.45                     | 61.55    | 7.48                                    | 4.21                                     | 11.26              | 23.83  |
| North Dakota.....            | 729                       | 44.99                     | 55.01    | 3.01                                    | 11.93                                    | 10.01              | 53.42  |
| South Dakota.....            | 1,200                     | 40.83                     | 59.17    | 13.75                                   | 3.75                                     | 11.58              | 35.97  |
| Nebraska.....                | 9,238                     | 40.46                     | 59.54    | 11.27                                   | 6.39                                     | 11.46              | 42.87  |
| Kansas.....                  | 9,055                     | 38.97                     | 61.03    | 11.31                                   | 5.74                                     | 14.08              | 42.59  |
| Western Division:            |                           |                           |          |   |  |                    |  |
| Montana.....                 | 946                       | 37.52                     | 62.48    | 10.36                                   | 9.19                                     | 9.40               | 40.46  |
| Wyoming.....                 | 260                       | 41.54                     | 58.46    | 0                                       | 0  | 6.15               | 12.50  |
| Colorado.....                | 3,682                     | 39.98                     | 60.02    | 9.45                                    | 17.82                                    | 11.54              | 40.00  |
| New Mexico.....              | 216                       | 54.63                     | 45.37    | 7.87                                    | 1.38                                     | 4.63               | 0  |
| Arizona.....                 | 168                       | 35.71                     | 64.29    | 4.76                                    | 0  | 13.69              | 0  |
| Utah.....                    | 513                       | 36.65                     | 63.35    | 15.20                                   | 9.16                                     | 9.55               | 57.14  |
| Nevada.....                  | 322                       | 34.16                     | 65.84    | 7.14                                    | 2.80                                     | 17.18              | 36.36  |
| Idaho.....                   | 255                       | 38.43                     | 61.57    | 6.27                                    | 0  | 12.16              | 54.84  |
| Washington.....              | 1,836                     | 43.30                     | 56.70    | 6.64                                    | 7.89                                     | 11.12              | 30.62  |
| Oregon.....                  | 1,499                     | 41.15                     | 58.85    | 3.80                                    | 4.60                                     | 10.94              | 16.46  |
| California.....              | 9,169                     | 42.51                     | 57.49    | 4.56                                    | 11.59                                    | 12.42              | 39.52  |

TABLE 8.—Percentages for public high schools.

PER CENT OF STUDENTS IN CERTAIN STUDIES.

| State or Territory.         | Per cent to total number of secondary students. |        |         |         |          |            |                |             |
|-----------------------------|---|--------|---------|---------|----------|------------|----------------|-------------|
|                             | Latin.  | Greek. | French. | German. | Algebra. | Geom-etry. | Trigo-nometry. | Astron-omy. |
| United States.....          | 43.97   | 3.10   | 6.52    | 11.40   | 54.27    | 25.34      | 2.53           | 4.79        |
| North Atlantic Division...  | 42.64   | 6.15   | 14.21   | 13.52   | 50.48    | 25.80      | 1.74           | 5.95        |
| South Atlantic Division...  | 63.33   | 3.16   | 9.52    | 13.06   | 65.99    | 32.38      | 7.49           | 5.16        |
| South Central Division....  | 48.48   | 2.18   | 3.03    | 4.22    | 66.56    | 28.77      | 6.92           | 4.57        |
| North Central Division..... | 41.55   | 1.36   | 2.14    | 10.84   | 52.78    | 22.93      | 1.74           | 4.21        |
| Western Division.....       | 46.24   | 2.71   | 3.97    | 13.12   | 58.88    | 32.00      | 2.47           | 3.34        |
| North Atlantic Division:    |   |        |         |         |          |            |                |             |
| Maine.....                  | 48.84   | 13.41  | 14.82   | 1.24    | 52.55    | 23.31      | 0.54           | 8.82        |
| New Hampshire.....          | 51.80   | 7.82   | 27.17   | 0.90    | 45.78    | 27.32      | 1.50           | 7.25        |
| Vermont.....                | 41.39   | 7.01   | 8.01    | 3.20    | 40.71    | 19.22      | 0              | 8.51        |
| Massachusetts.....          | 51.03   | 9.61   | 36.75   | 9.13    | 45.13    | 29.25      | 0.58           | 6.61        |
| Rhode Island.....           | 55.98   | 11.75  | 22.19   | 10.03   | 51.92    | 20.64      | 1.39           | 7.70        |
| Connecticut.....            | 56.18   | 8.80   | 13.22   | 19.98   | 50.89    | 28.35      | 1.80           | 5.64        |
| New York.....               | 28.87   | 3.53   | 4.74    | 16.93   | 38.41    | 19.91      | 1.82           | 4.36        |
| New Jersey.....             | 32.34   | 3.59   | 3.37    | 25.16   | 68.25    | 23.54      | 2.56           | 6.88        |
| Pennsylvania.....           | 47.90   | 2.58   | 1.80    | 15.88   | 70.46    | 32.39      | 3.49           | 5.66        |
| South Atlantic Division:    |   |        |         |         |          |            |                |             |
| Delaware.....               | 81.60   | 0      | 0.10    | 0       | 68.20    | 30.16      | 3.48           | 1.12        |
| Maryland.....               | 63.06   | 4.51   | 7.29    | 29.83   | 73.28    | 69.32      | 14.52          | 11.10       |
| District of Columbia....    | 49.98   | 3.48   | 9.56    | 29.84   | 36.80    | 21.38      | 3.39           | 0           |
| Virginia.....               | 63.72   | 1.10   | 9.52    | 22.93   | 63.27    | 21.98      | 5.06           | 0.84        |
| West Virginia.....          | 32.23   | 0      | 0.72    | 0       | 65.60    | 30.48      | 2.17           | 1.76        |
| North Carolina.....         | 83.12   | 0.42   | 1.47    | 2.52    | 74.11    | 15.72      | 0.10           | 7.23        |
| South Carolina.....         | 60.30   | 1.99   | 8.37    | 2.05    | 68.67    | 15.60      | 1.14           | 1.57        |
| Georgia.....                | 68.07   | 6.10   | 16.76   | 1.03    | 73.54    | 30.96      | 10.53          | 7.06        |
| Florida.....                | 65.13   | 0.10   | 3.68    | 2.35    | 62.47    | 30.47      | 12.68          | 14.62       |
| South Central Division:     |   |        |         |         |          |            |                |             |
| Kentucky.....               | 62.38   | 5.37   | 0.92    | 11.27   | 69.26    | 32.37      | 10.95          | 5.15        |
| Tennessee.....              | 44.71   | 0.92   | 0.46    | 1.13    | 62.42    | 23.42      | 2.92           | 1.93        |
| Alabama.....                | 55.61   | 4.97   | 6.67    | 3.82    | 65.14    | 35.25      | 20.02          | 16.78       |
| Mississippi.....            | 41.09   | 1.96   | 0.91    | 2.02    | 57.24    | 16.71      | 5.01           | 3.15        |
| Louisiana.....              | 55.15   | 0.85   | 32.79   | 0       | 63.54    | 18.90      | 2.26           | 1.27        |
| Texas.....                  | 46.69   | 1.30   | 0.66    | 4.21    | 72.26    | 36.62      | 5.81           | 4.13        |
| Arkansas.....               | 37.37   | 0.85   | 2.17    | 3.73    | 62.05    | 19.09      | 4.00           | 1.55        |
| Oklahoma.....               | 59.60   | 0      | 3.97    | 15.23   | 97.35    | 31.13      | 1.99           | 0           |
| Indian Territory.....       | 44.81   | 1.64   | 0       | 0       | 73.77    | 25.68      | 4.37           | 5.46        |
| North Central Division:     |   |        |         |         |          |            |                |             |
| Ohio.....                   | 50.49   | 2.20   | 1.81    | 10.59   | 59.30    | 26.24      | 4.11           | 4.74        |
| Indiana.....                | 52.56   | 0.45   | 0.36    | 6.16    | 56.18    | 22.82      | 1.17           | 2.74        |
| Illinois.....               | 43.84   | 1.39   | 5.39    | 12.23   | 50.36    | 23.72      | 1.62           | 6.28        |
| Michigan.....               | 30.40   | 1.40   | 2.71    | 14.72   | 49.69    | 18.96      | 0.79           | 3.87        |
| Wisconsin.....              | 21.61   | 0.56   | 0.44    | 19.77   | 44.83    | 20.32      | 0.30           | 0.86        |
| Minnesota.....              | 52.29   | 2.74   | 4.72    | 14.66   | 47.52    | 27.16      | 0.31           | 3.29        |
| Iowa.....                   | 35.70   | 0.21   | 0.15    | 6.84    | 51.75    | 22.03      | 0.95           | 7.03        |
| Missouri.....               | 36.95   | 2.62   | 2.53    | 7.54    | 53.92    | 20.57      | 2.39           | 3.01        |
| North Dakota.....           | 56.38   | 0      | 0       | 0.69    | 53.09    | 27.16      | 0.69           | 8.09        |
| South Dakota.....           | 36.92   | 0.17   | 0.67    | 10.75   | 48.08    | 20.83      | 1.83           | 5.58        |
| Nebraska.....               | 38.83   | 1.02   | 1.24    | 6.29    | 54.85    | 22.65      | 1.88           | 1.92        |
| Kansas.....                 | 47.82   | 0.75   | 0.25    | 9.10    | 53.69    | 23.19      | 1.16           | 2.79        |
| Western Division:           |   |        |         |         |          |            |                |             |
| Montana.....                | 49.47   | 0      | 0.85    | 6.13    | 48.52    | 15.75      | 0.53           | 3.81        |
| Wyoming.....                | 41.92   | 0      | 0       | 0       | 30.77    | 33.85      | 5.00           | 3.08        |
| Colorado.....               | 56.27   | 6.03   | 6.95    | 25.80   | 50.68    | 30.50      | 4.10           | 5.68        |
| New Mexico.....             | 25.46   | 0      | 0       | 0       | 45.83    | 8.80       | 0              | 1           |
| Arizona.....                | 13.10   | 0      | 0       | 0       | 77.98    | 19.64      | 1.79           | 3.57        |
| Utah.....                   | 38.60   | 0.97   | 6.24    | 12.28   | 67.84    | 34.50      | 5.26           | 4.09        |
| Nevada.....                 | 30.75   | 0      | 0       | 1.86    | 85.71    | 43.79      | 0.62           | 1           |
| Idaho.....                  | 32.55   | 0      | 0       | 0       | 50.20    | 33.33      | 0              | 5.88        |
| Washington.....             | 41.88   | 0      | 0       | 12.58   | 64.54    | 26.20      | 1.63           | 3.38        |
| Oregon.....                 | 22.95   | 0      | 0       | 14.14   | 69.65    | 20.68      | 2.80           | 2.33        |
| California.....             | 49.14   | 3.10   | 4.95    | 10.41   | 59.91    | 37.46      | 2.10           | 2.59        |



TABLE 9.—Percentages for public high schools.

PER CENT OF STUDENTS IN CERTAIN STUDIES.

| State or Territory.        | Per cent to total number of secondary students. |            |                     |          |             |             |           |          |
|----------------------------|---|------------|---------------------|----------|-------------|-------------|-----------|----------|
|                            | Physies.  | Chemistry. | Physical geography. | Geology. | Physiology. | Psychology. | Rhetoric. | History. |
| United States.....         | 22.77   | 9.15       | 23.89               | 5.00     | 29.95       | 2.74        | 32.05     | 34.33    |
| North Atlantic Division... | 21.51   | 10.23      | 21.44               | 6.25     | 28.35       | 1.53        | 27.26     | 34.89    |
| South Atlantic Division... | 30.45   | 8.62       | 26.02               | 3.29     | 31.20       | 3.29        | 36.40     | 48.61    |
| South Central Division...  | 29.97   | 9.51       | 29.78               | 7.80     | 39.15       | 5.77        | 39.04     | 42.11    |
| North Central Division...  | 21.16   | 7.91       | 25.18               | 4.00     | 30.76       | 3.03        | 32.15     | 29.45    |
| Western Division.....      | 25.83   | 14.22      | 15.18               | 4.48     | 16.75       | 2.00        | 43.91     | 48.90    |
| North Atlantic Division:   |   |            |                     |          |             |             |           |          |
| Maine.....                 | 19.20   | 9.72       | 19.38               | 8.92     | 16.74       | 2.61        | 26.36     | 31.17    |
| New Hampshire.....         | 23.28   | 11.80      | 12.28               | 5.84     | 18.06       | 0.81        | 28.19     | 29.30    |
| Vermont.....               | 14.38   | 9.96       | 21.10               | 8.97     | 15.20       | 2.49        | 27.22     | 32.14    |
| Massachusetts.....         | 23.21   | 13.16      | 9.90                | 5.48     | 18.08       | 0.42        | 35.03     | 46.66    |
| Rhode Island.....          | 19.78   | 9.46       | 6.80                | 5.81     | 4.42        | 4.05        | 18.35     | 52.83    |
| Connecticut.....           | 23.34   | 10.92      | 18.22               | 7.19     | 22.32       | 0.66        | 27.88     | 33.50    |
| New York.....              | 13.45   | 6.71       | 22.77               | 6.28     | 28.52       | 1.71        | 18.75     | 24.47    |
| New Jersey.....            | 27.14   | 9.22       | 27.06               | 4.51     | 42.28       | 1.22        | 31.68     | 32.06    |
| Pennsylvania.....          | 30.70   | 12.07      | 36.61               | 6.42     | 47.61       | 2.37        | 29.84     | 37.48    |
| South Atlantic Division:   |   |            |                     |          |             |             |           |          |
| Delaware.....              | 34.15   | 19.72      | 39.16               | 0        | 51.43       | 0           | 33.13     | 39.88    |
| Maryland.....              | 52.89   | 7.62       | 20.21               | 0.36     | 37.64       | 6.51        | 25.87     | 63.75    |
| District of Columbia...    | 19.39   | 8.59       | 0                   | 1.50     | 0           | 0           | 31.42     | 54.39    |
| Virginia.....              | 26.29   | 8.97       | 34.21               | 3.67     | 37.04       | 1.81        | 43.28     | 52.73    |
| West Virginia.....         | 23.55   | 5.06       | 37.40               | 2.58     | 34.40       | 3.93        | 48.45     | 51.03    |
| North Carolina.....        | 19.81   | 4.51       | 24.74               | 9.85     | 52.31       | 3.56        | 25.16     | 57.34    |
| South Carolina.....        | 22.77   | 0.84       | 32.95               | 1.99     | 24.70       | 1.99        | 29.28     | 46.33    |
| Georgia.....               | 28.33   | 9.02       | 24.73               | 5.90     | 26.22       | 3.91        | 37.63     | 34.38    |
| Florida.....               | 35.17   | 18.00      | 46.42               | 0.82     | 54.40       | 6.85        | 47.03     | 50.61    |
| South Central Division:    |   |            |                     |          |             |             |           |          |
| Kentucky.....              | 25.79   | 12.75      | 18.84               | 3.21     | 30.89       | 7.02        | 49.95     | 46.67    |
| Tennessee.....             | 23.21   | 7.62       | 21.42               | 10.97    | 27.07       | 1.80        | 30.49     | 37.54    |
| Alabama.....               | 35.87   | 20.29      | 38.84               | 18.20    | 52.76       | 16.97       | 50.52     | 45.08    |
| Mississippi.....           | 40.96   | 7.38       | 30.50               | 6.46     | 46.58       | 0.57        | 35.67     | 40.46    |
| Louisiana.....             | 26.52   | 11.14      | 33.85               | 0        | 28.49       | 0.42        | 43.44     | 62.13    |
| Texas.....                 | 33.11   | 6.97       | 32.52               | 7.63     | 42.96       | 6.66        | 36.46     | 40.02    |
| Arkansas.....              | 19.87   | 6.67       | 38.73               | 4.85     | 43.73       | 5.98        | 37.72     | 37.99    |
| Oklahoma.....              | 37.75   | 17.88      | 36.42               | 13.91    | 33.11       | 10.60       | 39.74     | 34.44    |
| Indian Territory.....      | 33.33   | 16.94      | 53.55               | 10.38    | 51.37       | 3.28        | 23.50     | 58.47    |
| North Central Division:    |   |            |                     |          |             |             |           |          |
| Ohio.....                  | 20.73   | 8.38       | 26.53               | 3.03     | 36.81       | 1.51        | 29.98     | 28.64    |
| Indiana.....               | 23.35   | 8.27       | 28.52               | 3.94     | 25.50       | 4.59        | 41.41     | 30.64    |
| Illinois.....              | 23.06   | 11.06      | 18.34               | 4.94     | 23.17       | 1.33        | 35.25     | 31.53    |
| Michigan.....              | 19.87   | 8.13       | 18.41               | 3.73     | 27.62       | 3.36        | 25.83     | 26.89    |
| Wisconsin.....             | 16.96   | 2.95       | 33.64               | 1.59     | 26.13       | 7.54        | 16.92     | 24.58    |
| Minnesota.....             | 15.98   | 10.20      | 21.27               | 2.84     | 29.78       | 0.37        | 23.48     | 29.98    |
| Iowa.....                  | 21.53   | 5.26       | 30.92               | 6.08     | 33.81       | 1.76        | 33.49     | 28.63    |
| Missouri.....              | 21.64   | 7.43       | 20.12               | 4.57     | 38.00       | 7.20        | 46.94     | 32.20    |
| North Dakota.....          | 26.61   | 7.82       | 33.33               | 7.41     | 43.76       | 4.80        | 24.83     | 47.46    |
| South Dakota.....          | 22.83   | 11.42      | 37.75               | 7.00     | 39.00       | 0.50        | 31.00     | 28.17    |
| Nebraska.....              | 21.08   | 9.15       | 29.23               | 3.75     | 37.92       | 0.76        | 37.71     | 31.76    |
| Kansas.....                | 25.49   | 5.22       | 30.92               | 4.34     | 29.57       | 5.44        | 30.07     | 30.61    |
| Western Division:          |   |            |                     |          |             |             |           |          |
| Montana.....               | 28.33   | 11.84      | 19.66               | 10.04    | 25.37       | 0.74        | 35.84     | 29.07    |
| Wyoming.....               | 12.31   | 4.23       | 30.77               | 4.62     | 30.38       | 0           | 43.85     | 37.69    |
| Colorado.....              | 24.17   | 13.96      | 19.50               | 9.70     | 14.42       | 5.00        | 32.24     | 52.44    |
| New Mexico.....            | 12.96   | 2.78       | 28.70               | 1.85     | 31.02       | 0           | 32.87     | 33.80    |
| Arizona.....               | 45.24   | 3.57       | 27.33               | 11.90    | 27.38       | 0           | 13.69     | 49.40    |
| Utah.....                  | 13.26   | 2.53       | 14.23               | 5.07     | 5.07        | 8.97        | 62.38     | 17.54    |
| Nevada.....                | 40.37   | 33.54      | 47.52               | 0        | 37.27       | 0           | 52.48     | 60.25    |
| Idaho.....                 | 39.61   | 0          | 59.22               | 3.53     | 54.51       | 0.78        | 23.14     | 35.69    |
| Washington.....            | 28.76   | 7.19       | 32.03               | 7.90     | 36.00       | 5.23        | 31.15     | 36.22    |
| Oregon.....                | 22.55   | 9.47       | 26.95               | 2.07     | 16.14       | 1.13        | 29.35     | 33.42    |
| California.....            | 26.33   | 17.91      | 4.31                | 1.58     | 10.97       | 0.27        | 54.50     | 57.04    |



TABLE 10.—Summary of statistics of public high schools.

## EQUIPMENT AND INCOME.

| State or Territory.          | Libraries.         |          | Grounds, buildings, scientific apparatus, etc. |            | State and municipal aid. |           | Tuition fees.      |         | Productive funds.  |         | Income from other sources and unclassified. | Total income from all sources. |           |
|------------------------------|--------------------|----------|--|------------|--------------------------|-----------|--------------------|---------|--------------------|---------|---|--------------------------------|-----------|
|                              | Schools reporting. | Volumes. | Schools reporting.                             | Value.     | Schools reporting.       | Amount.   | Schools reporting. | Amount. | Schools reporting. | Amount. |   | Schools reporting.             | Amount.   |
| United States                |                    |          |  |            |                          |           |                    |         |                    |         |   |                                |           |
| North Atlantic Division..... | 892                | 685,610  | 874  | 25,629,370 | 649                      | 1,982,732 | 643                | 269,883 | 115                | 125,753 | 1,318,389                                   | 835                            | 3,696,637 |
| South Atlantic Division..... | 122                | 63,799   | 304  | 2,288,772  | 245                      | 432,278   | 194                | 102,054 | 19                 | 21,211  | 176,502                                     | 290                            | 732,045   |
| South Central Division.....  | 198                | 79,610   | 470  | 4,289,913  | 384                      | 814,293   | 352                | 107,779 | 44                 | 107,779 | 96,821                                      | 416                            | 1,220,688 |
| North Central Division.....  | 1,914              | 941,197  | 2,049  | 40,175,663 | 1,181                    | 3,809,586 | 1,576              | 413,840 | 146                | 353,459 | 2,286,136                                   | 1,854                          | 6,863,021 |
| Western Division.....        | 162                | 68,730   | 161  | 5,572,676  | 104                      | 680,308   | 84                 | 31,061  | 7                  | 102,593 | 182,534                                     | 145                            | 996,406   |
| North Atlantic Division:     |                    |          |  |            |                          |           |                    |         |                    |         |   |                                |           |
| Maine.....                   | 48                 | 18,236   | 70   | 654,875    | 83                       | 62,696    | 46                 | 9,197   | 11                 | 4,589   | 13,812                                      | 88                             | 90,294    |
| New Hampshire.....           | 24                 | 7,539    | 35   | 829,300    | 11                       | 29,810    | 26                 | 5,018   | 5                  | 1,560   | 11,305                                      | 32                             | 57,693    |
| Vermont.....                 | 35                 | 13,062   | 33   | 643,700    | 20                       | 79,795    | 35                 | 11,323  | 3                  | 795     | 12,184                                      | 36                             | 107,101   |
| Massachusetts.....           | 133                | 88,204   | 150  | 6,424,575  | 65                       | 246,336   | 76                 | 48,550  | 25                 | 16,252  | 74,660                                      | 119                            | 385,778   |
| Rhode Island.....            | 12                 | 8,330    | 5  | 135,000    | 0                        | 0         | 7                  | 3,870   | 2                  | 6,850   | 4,000                                       | 7                              | 14,720    |
| Connecticut.....             | 50                 | 31,552   | 38   | 1,816,452  | 16                       | 51,194    | 27                 | 12,451  | 2                  | 1,055   | 28,730                                      | 38                             | 93,420    |
| New York.....                | 315                | 358,792  | 308  | 7,458,836  | 272                      | 567,804   | 257                | 119,124 | 36                 | 9,477   | 700,345                                     | 296                            | 1,396,750 |
| New Jersey.....              | 55                 | 31,480   | 51   | 1,657,768  | 42                       | 394,143   | 32                 | 12,211  | 12                 | 355     | 64,011                                      | 48                             | 470,720   |
| Pennsylvania.....            | 200                | 123,415  | 184  | 1,008,864  | 140                      | 540,954   | 137                | 48,139  | 20                 | 81,836  | 409,222                                     | 171                            | 1,080,151 |
| South Atlantic Division:     |                    |          |  |            |                          |           |                    |         |                    |         |   |                                |           |
| Delaware.....                | 7                  | 3,636    | 11   | 174,900    | 9                        | 33,534    | 7                  | 963     | 0                  | 0       | 8,604                                       | 10                             | 43,101    |
| Maryland.....                | 25                 | 14,042   | 28   | 336,400    | 18                       | 50,887    | 11                 | 15,225  | 0                  | 0       | 124,781                                     | 28                             | 190,893   |
| District of Columbia.....    | 4                  | 8,794    | 2  | 235,600    | 0                        | 0         | 0                  | 0       | 0                  | 0       | 0   | 0                              | 0         |
| Virginia.....                | 16                 | 4,100    | 70   | 402,290    | 58                       | 105,001   | 41                 | 13,106  | 1                  | 260     | 5,246                                       | 73                             | 123,613   |
| West Virginia.....           | 12                 | 3,481    | 18   | 263,555    | 8                        | 14,088    | 8                  | 330     | 0                  | 0       | 5,475                                       | 13                             | 19,893    |
| North Carolina.....          | 6                  | 7,175    | 13   | 124,000    | 9                        | 24,783    | 10                 | 6,514   | 0                  | 0       | 300   | 12                             | 31,597    |
| South Carolina.....          | 12                 | 5,299    | 42   | 132,077    | 39                       | 30,610    | 36                 | 17,318  | 5                  | 1,170   | 5,805                                       | 42                             | 54,923    |
| Georgia.....                 | 29                 | 14,962   | 98   | 465,350    | 88                       | 143,645   | 77                 | 46,669  | 11                 | 16,847  | 17,138                                      | 100                            | 224,299   |
| Florida.....                 | 11                 | 2,310    | 22   | 124,600    | 16                       | 29,700    | 4                  | 1,929   | 2                  | 2,934   | 9,153                                       | 21                             | 43,716    |
| South Central Division:      |                    |          |  |            |                          |           |                    |         |                    |         |   |                                |           |
| Kentucky.....                | 32                 | 22,548   | 51   | 848,500    | 46                       | 140,434   | 40                 | 18,934  | 9                  | 10,350  | 13,256                                      | 48                             | 182,974   |
| Tennessee.....               | 25                 | 6,538    | 86   | 846,250    | 57                       | 122,615   | 59                 | 45,225  | 5                  | 3,580   | 9,256                                       | 80                             | 180,676   |
| Alabama.....                 | 10                 | 7,850    | 39   | 170,250    | 39                       | 30,507    | 39                 | 31,012  | 2                  | 385     | 1,335                                       | 43                             | 63,239    |
| Mississippi.....             | 22                 | 8,909    | 66   | 444,900    | 66                       | 77,747    | 61                 | 28,991  | 7                  | 25,490  | 10,165                                      | 79                             | 142,393   |
| Louisiana.....               | 9                  | 3,408    | 14   | 58,451     | 14                       | 22,310    | 8                  | 4,320   | 2                  | 1,700   | 2,250                                       | 16                             | 30,580    |
| Texas.....                   | 70                 | 19,073   | 143  | 1,331,312  | 125                      | 338,844   | 114                | 62,258  | 12                 | 11,924  | 32,874                                      | 102                            | 445,900   |
| Arkansas.....                | 25                 | 8,393    | 49   | 297,950    | 35                       | 62,826    | 30                 | 10,853  | 3                  | 750     | 15,570                                      | 41                             | 89,999    |
| Oklahoma.....                | 2                  | 442      | 3  | 65,300     | 0                        | 0         | 1                  | 200     | 1                  | 11,000  | 2,000                                       | 2                              | 13,200    |
| Indian Territory.....        | 3                  | 2,458    | 5  | 327,000    | 2                        | 19,012    | 0                  | 0       | 3                  | 42,600  | 10,115                                      | 5                              | 71,727    |



TABLE 11.—*Summary of statistics of private secondary schools, 1894-95.*

## SCHOOLS, INSTRUCTORS, AND STUDENTS.

| State or Territory.      | Number of schools. | Secondary instructors. |         |        | Secondary students. |         |         | Colored secondary students (included in preceding column). |         |        | Elementary pupils. |         |         |
|--------------------------|--------------------|------------------------|---------|--------|---------------------|---------|---------|--|---------|--------|--------------------|---------|---------|
|                          |                    | Male.                  | Female. | Total. | Male.               | Female. | Total.  | Male.  | Female. | Total. | Male.              | Female. | Total.  |
| United States....        | 2,180              | 3,991                  | 4,568   | 8,559  | 57,354              | 60,993  | 118,347 | 1,110  | 2,233   | 3,343  | 51,761             | 62,117  | 113,878 |
| North Atlantic Division  | 673                | 1,661                  | 1,877   | 3,538  | 21,934              | 20,564  | 42,498  | 66   | 87      | 153    | 12,935             | 13,315  | 26,250  |
| South Atlantic Division  | 467                | 656                    | 757     | 1,413  | 10,432              | 10,538  | 20,970  | 712  | 1,619   | 2,331  | 11,366             | 14,020  | 25,386  |
| South Central Division   | 524                | 712                    | 760     | 1,472  | 12,322              | 14,750  | 27,072  | 312  | 511     | 823    | 15,547             | 18,037  | 33,584  |
| North Central Division   | 385                | 740                    | 901     | 1,641  | 10,198              | 11,576  | 21,774  | 18   | 15      | 33     | 8,119              | 11,384  | 19,503  |
| Western Division.....    | 131                | 222                    | 273     | 495    | 2,468               | 3,565   | 6,033   | 2  | 1       | 3      | 3,794              | 5,361   | 9,155   |
| North Atlantic Division: |                    |                        |         |        |                     |         |         |  |         |        |                    |         |         |
| Maine.....               | 39                 | 72                     | 101     | 173    | 1,649               | 1,673   | 3,322   | 2  | 0       | 2      | 243                | 274     | 517     |
| New Hampshire.....       | 25                 | 86                     | 49      | 135    | 1,208               | 756     | 1,964   | 11   | 4       | 15     | 164                | 218     | 382     |
| Vermont.....             | 25                 | 51                     | 76      | 127    | 1,137               | 1,110   | 2,247   | 0  | 0       | 0      | 400                | 467     | 867     |
| Massachusetts.....       | 95                 | 244                    | 346     | 590    | 2,976               | 3,164   | 6,140   | 13   | 4       | 17     | 675                | 861     | 1,536   |
| Rhode Island.....        | 12                 | 25                     | 39      | 64     | 333                 | 311     | 644     | 0  | 0       | 0      | 248                | 298     | 546     |
| Connecticut.....         | 64                 | 108                    | 168     | 276    | 1,217               | 1,658   | 2,875   | 1  | 16      | 17     | 521                | 768     | 1,289   |
| New York.....            | 204                | 553                    | 572     | 1,125  | 5,479               | 5,715   | 11,194  | 2  | 4       | 6      | 5,636              | 6,307   | 11,943  |
| New Jersey.....          | 69                 | 178                    | 174     | 352    | 2,478               | 1,551   | 4,029   | 2  | 0       | 2      | 1,256              | 1,358   | 2,614   |
| Pennsylvania.....        | 140                | 344                    | 352     | 696    | 5,457               | 4,626   | 10,083  | 35   | 59      | 94     | 3,792              | 2,764   | 6,556   |
| South Atlantic Division: |                    |                        |         |        |                     |         |         |  |         |        |                    |         |         |
| Delaware.....            | 5                  | 10                     | 14      | 24     | 136                 | 155     | 291     | 0  | 0       | 0      | 113                | 131     | 244     |
| Maryland.....            | 45                 | 90                     | 126     | 216    | 748                 | 1,258   | 2,006   | 0  | 5       | 5      | 1,031              | 983     | 2,014   |
| Dist. of Columbia.....   | 15                 | 25                     | 69      | 94     | 314                 | 461     | 775     | 0  | 0       | 0      | 245                | 1,019   | 1,264   |
| Virginia.....            | 93                 | 132                    | 128     | 260    | 1,932               | 1,728   | 3,660   | 23   | 150     | 173    | 1,213              | 1,425   | 2,638   |
| West Virginia.....       | 15                 | 20                     | 20      | 40     | 334                 | 389     | 723     | 0  | 0       | 0      | 145                | 277     | 422     |
| North Carolina.....      | 142                | 187                    | 168     | 355    | 3,442               | 2,830   | 6,272   | 220  | 382     | 602    | 3,178              | 3,408   | 6,586   |
| South Carolina.....      | 45                 | 54                     | 69      | 123    | 939                 | 1,043   | 1,982   | 101  | 354     | 455    | 1,256              | 1,397   | 2,653   |
| Georgia.....             | 95                 | 129                    | 133     | 262    | 2,421               | 2,366   | 4,787   | 181  | 272     | 453    | 3,772              | 4,622   | 8,394   |
| Florida.....             | 12                 | 9                      | 30      | 39     | 166                 | 308     | 474     | 187  | 456     | 643    | 413                | 758     | 1,171   |
| South Central Division:  |                    |                        |         |        |                     |         |         |  |         |        |                    |         |         |
| Kentucky.....            | 86                 | 116                    | 163     | 279    | 1,827               | 3,117   | 4,944   | 0  | 0       | 0      | 1,959              | 2,251   | 4,210   |
| Tennessee.....           | 129                | 189                    | 155     | 344    | 3,387               | 3,208   | 6,595   | 40   | 62      | 102    | 4,562              | 4,731   | 9,293   |
| Alabama.....             | 79                 | 95                     | 86      | 181    | 1,823               | 1,481   | 3,304   | 66   | 104     | 170    | 2,002              | 2,170   | 4,172   |
| Mississippi.....         | 74                 | 91                     | 90      | 181    | 1,564               | 1,832   | 3,446   | 88   | 135     | 223    | 2,340              | 2,637   | 4,977   |
| Louisiana.....           | 34                 | 24                     | 85      | 109    | 485                 | 1,054   | 1,539   | 12   | 8       | 20     | 725                | 1,601   | 2,326   |
| Texas.....               | 77                 | 129                    | 134     | 263    | 2,237               | 3,048   | 5,285   | 83   | 176     | 259    | 2,493              | 3,286   | 5,779   |
| Arkansas.....            | 37                 | 59                     | 33      | 92     | 890                 | 826     | 1,716   | 23   | 24      | 47     | 1,084              | 930     | 2,014   |
| Oklahoma.....            | 2                  | 2                      | 5       | 7      | 21                  | 38      | 59      | 0  | 0       | 0      | 15                 | 42      | 57      |
| Indian Territory.....    | 6                  | 7                      | 9       | 16     | 88                  | 96      | 184     | 0  | 2       | 2      | 367                | 389     | 756     |
| North Central Division:  |                    |                        |         |        |                     |         |         |  |         |        |                    |         |         |
| Ohio.....                | 56                 | 101                    | 146     | 247    | 988                 | 1,460   | 2,448   | 0  | 1       | 1      | 1,135              | 1,903   | 3,038   |
| Indiana.....             | 25                 | 39                     | 68      | 107    | 555                 | 1,082   | 1,637   | 10   | 6       | 16     | 385                | 1,255   | 1,640   |
| Illinois.....            | 55                 | 122                    | 169     | 291    | 1,810               | 2,124   | 3,934   | 2  | 0       | 2      | 1,040              | 2,043   | 3,083   |
| Michigan.....            | 19                 | 26                     | 59      | 85     | 466                 | 601     | 1,067   | 0  | 0       | 0      | 1,030              | 1,366   | 2,396   |
| Wisconsin.....           | 28                 | 89                     | 40      | 129    | 988                 | 588     | 1,576   | 0  | 1       | 1      | 637                | 495     | 1,132   |
| Minnesota.....           | 28                 | 62                     | 77      | 139    | 740                 | 676     | 1,416   | 0  | 0       | 0      | 737                | 642     | 1,379   |
| Iowa.....                | 40                 | 72                     | 85      | 157    | 1,479               | 1,563   | 3,042   | 1  | 1       | 2      | 688                | 785     | 1,473   |
| Missouri.....            | 85                 | 141                    | 159     | 300    | 1,914               | 2,363   | 4,277   | 4  | 6       | 10     | 1,470              | 1,811   | 3,281   |
| North Dakota.....        | 4                  | 4                      | 6       | 10     | 93                  | 97      | 190     | 0  | 0       | 0      | 137                | 172     | 309     |
| South Dakota.....        | 7                  | 9                      | 14      | 23     | 118                 | 100     | 218     | 0  | 0       | 0      | 142                | 103     | 245     |
| Nebraska.....            | 14                 | 33                     | 29      | 62     | 348                 | 385     | 733     | 0  | 0       | 0      | 352                | 316     | 668     |
| Kansas.....              | 24                 | 42                     | 49      | 91     | 699                 | 537     | 1,236   | 1  | 0       | 1      | 366                | 493     | 859     |
| Western Division:        |                    |                        |         |        |                     |         |         |  |         |        |                    |         |         |
| Montana.....             | 4                  | 2                      | 6       | 8      | 34                  | 90      | 124     | 0  | 0       | 0      | 134                | 264     | 398     |
| Wyoming.....             | 2                  | 2                      | 4       | 6      | 34                  | 38      | 72      | 0  | 0       | 0      | 25                 | 44      | 69      |
| Colorado.....            | 6                  | 10                     | 10      | 20     | 109                 | 202     | 311     | 0  | 0       | 0      | 270                | 417     | 687     |
| New Mexico.....          | 6                  | 7                      | 6       | 13     | 53                  | 64      | 117     | 0  | 0       | 0      | 142                | 105     | 247     |
| Arizona.....             | 17                 | 45                     | 26      | 71     | 759                 | 933     | 1,692   | 0  | 0       | 0      | 665                | 558     | 1,223   |
| Utah.....                | 1                  | 0                      | 1       | 1      | 0                   | 14      | 14      | 0  | 0       | 0      | 12                 | 63      | 75      |
| Nevada.....              | 2                  | 2                      | 2       | 4      | 30                  | 49      | 79      | 0  | 0       | 0      | 7                  | 12      | 19      |
| Idaho.....               | 13                 | 17                     | 39      | 56     | 213                 | 515     | 728     | 1  | 1       | 2      | 83                 | 404     | 487     |
| Washington.....          | 14                 | 23                     | 32      | 55     | 290                 | 304     | 594     | 0  | 0       | 0      | 332                | 367     | 699     |
| Oregon.....              | 14                 | 23                     | 32      | 55     | 290                 | 304     | 594     | 0  | 0       | 0      | 332                | 367     | 699     |
| California.....          | 66                 | 114                    | 147     | 261    | 946                 | 1,356   | 2,302   | 1  | 0       | 1      | 2,124              | 3,127   | 5,251   |

TABLE 12.—*Summary of statistics of private secondary schools.*

## STUDENTS AND COURSES OF STUDY.

| State or Territory.          | Students preparing for college. |         |        |                    |         |        | Graduates in the class of 1895. |         |        | College preparatory students in graduating class of 1895. |         |        | Students in military tactics. |
|------------------------------|---------------------------------|---------|--------|--------------------|---------|--------|---------------------------------|---------|--------|---|---------|--------|-------------------------------|
|                              | Classical course.               |         |        | Scientific course. |         |        |                                 |         |        |   |         |        |                               |
|                              | Male.                           | Female. | Total. | Male.              | Female. | Total. | Male.                           | Female. | Total. | Male.   | Female. | Total. |                               |
| United States .....          | 13,503                          | 6,974   | 20,477 | 8,058              | 3,516   | 11,574 | 6,052                           | 5,908   | 11,960 | 3,724   | 2,009   | 5,733  | 6,237                         |
| North Atlantic Division..... | 6,522                           | 2,175   | 8,697  | 3,940              | 839     | 4,779  | 3,000                           | 2,467   | 5,467  | 1,973   | 676     | 2,649  | 2,464                         |
| South Atlantic Division..... | 2,566                           | 1,353   | 3,919  | 943                | 419     | 1,362  | 750                             | 775     | 1,525  | 470   | 312     | 782    | 933                           |
| South Central Division.....  | 2,410                           | 2,093   | 4,503  | 1,479              | 1,175   | 2,654  | 716                             | 1,065   | 1,781  | 451   | 438     | 889    | 1,120                         |
| North Central Division.....  | 1,530                           | 1,079   | 2,609  | 1,304              | 876     | 2,180  | 1,269                           | 1,280   | 2,549  | 598   | 439     | 1,037  | 1,269                         |
| Western Division.....        | 475                             | 274     | 749    | 392                | 207     | 599    | 317                             | 321     | 638    | 232   | 144     | 376    | 451                           |
| North Atlantic Division:     |                                 |         |        |                    |         |        |                                 |         |        |   |         |        |                               |
| Maine.....                   | 440                             | 242     | 682    | 121                | 21      | 142    | 189                             | 203     | 392    | 103   | 48      | 151    | 30                            |
| New Hampshire.....           | 535                             | 82      | 617    | 158                | 31      | 189    | 223                             | 107     | 330    | 146   | 28      | 174    | 0                             |
| Vermont.....                 | 235                             | 67      | 302    | 127                | 72      | 199    | 165                             | 137     | 302    | 56  | 28      | 84     | 110                           |
| Massachusetts.....           | 1,081                           | 521     | 1,602  | 565                | 207     | 772    | 435                             | 404     | 839    | 323   | 128     | 451    | 125                           |
| Rhode Island.....            | 146                             | 16      | 162    | 27                 | 0       | 27     | 50                              | 40      | 90     | 38  | 4       | 42     | 134                           |
| Connecticut.....             | 492                             | 179     | 671    | 200                | 37      | 237    | 176                             | 178     | 354    | 112   | 60      | 172    | 55                            |
| New York.....                | 1,502                           | 517     | 2,019  | 952                | 178     | 1,130  | 755                             | 679     | 1,434  | 495   | 204     | 699    | 1,386                         |
| New Jersey.....              | 767                             | 185     | 952    | 729                | 137     | 866    | 326                             | 182     | 508    | 279   | 42      | 321    | 251                           |
| Pennsylvania.....            | 1,324                           | 366     | 1,690  | 1,061              | 156     | 1,217  | 681                             | 537     | 1,218  | 421   | 134     | 555    | 373                           |
| South Atlantic Division:     |                                 |         |        |                    |         |        |                                 |         |        |   |         |        |                               |
| Delaware.....                | 30                              | 9       | 39     | 15                 | 15      | 30     | 17                              | 20      | 37     | 15  | 6       | 21     | 0                             |
| Maryland.....                | 75                              | 95      | 170    | 35                 | 45      | 80     | 87                              | 122     | 209    | 49  | 36      | 85     | 12                            |
| District of Columbia.....    | 148                             | 11      | 159    | 98                 | 15      | 113    | 35                              | 50      | 85     | 32  | 5       | 37     | 0                             |
| Virginia.....                | 519                             | 194     | 713    | 229                | 73      | 302    | 106                             | 112     | 218    | 64  | 42      | 106    | 379                           |
| West Virginia.....           | 48                              | 7       | 55     | 29                 | 0       | 29     | 19                              | 11      | 30     | 13  | 0       | 13     | 0                             |
| North Carolina.....          | 776                             | 437     | 1,213  | 267                | 123     | 390    | 200                             | 144     | 344    | 133   | 53      | 186    | 337                           |
| South Carolina.....          | 347                             | 86      | 433    | 66                 | 57      | 123    | 96                              | 111     | 207    | 53  | 67      | 120    | 88                            |
| Georgia.....                 | 608                             | 502     | 1,110  | 202                | 91      | 293    | 172                             | 184     | 356    | 106   | 101     | 207    | 117                           |
| Florida.....                 | 15                              | 12      | 27     | 2                  | 0       | 2      | 18                              | 21      | 39     | 5   | 2       | 7      | 0                             |
| South Central Division:      |                                 |         |        |                    |         |        |                                 |         |        |   |         |        |                               |
| Kentucky.....                | 344                             | 224     | 568    | 157                | 156     | 313    | 136                             | 159     | 295    | 93  | 66      | 159    | 334                           |
| Tennessee.....               | 742                             | 539     | 1,281  | 481                | 316     | 797    | 172                             | 243     | 415    | 122   | 83      | 205    | 30                            |
| Alabama.....                 | 354                             | 170     | 524    | 261                | 158     | 419    | 101                             | 68      | 169    | 54  | 14      | 68     | 328                           |
| Mississippi.....             | 262                             | 257     | 519    | 206                | 201     | 407    | 136                             | 175     | 311    | 83  | 78      | 161    | 97                            |
| Louisiana.....               | 64                              | 113     | 177    | 25                 | 21      | 46     | 17                              | 119     | 136    | 15  | 52      | 67     | 33                            |
| Texas.....                   | 369                             | 577     | 946    | 222                | 256     | 478    | 95                              | 240     | 335    | 46  | 110     | 156    | 174                           |
| Arkansas.....                | 232                             | 171     | 403    | 95                 | 46      | 141    | 32                              | 33      | 65     | 13  | 14      | 27     | 124                           |
| Oklahoma.....                | 21                              | 33      | 54     | 0                  | 3       | 3      | .....                           | .....   | .....  | .....   | .....   | .....  | 0                             |
| Indian Territory.....        | 22                              | 9       | 31     | 32                 | 18      | 50     | 27                              | 28      | 55     | 25  | 21      | 46     | 0                             |
| North Central Division:      |                                 |         |        |                    |         |        |                                 |         |        |   |         |        |                               |
| Ohio.....                    | 204                             | 121     | 325    | 178                | 118     | 296    | 117                             | 145     | 262    | 61  | 45      | 106    | 56                            |
| Indiana.....                 | 27                              | 41      | 68     | 16                 | 6       | 22     | 41                              | 102     | 143    | 19  | 56      | 75     | 106                           |
| Illinois.....                | 296                             | 204     | 500    | 217                | 188     | 405    | 213                             | 222     | 435    | 135   | 88      | 223    | 120                           |
| Michigan.....                | 89                              | 98      | 187    | 105                | 45      | 150    | 66                              | 80      | 146    | 35  | 28      | 63     | 42                            |
| Wisconsin.....               | 157                             | 74      | 231    | 123                | 43      | 166    | 186                             | 87      | 273    | 98  | 8       | 106    | 194                           |
| Minnesota.....               | 14                              | 24      | 38     | 39                 | 13      | 52     | 131                             | 76      | 207    | 38  | 28      | 66     | 124                           |
| Iowa.....                    | 222                             | 97      | 319    | 176                | 141     | 317    | 209                             | 169     | 378    | 72  | 51      | 123    | 85                            |
| Missouri.....                | 238                             | 237     | 475    | 247                | 224     | 471    | 197                             | 255     | 452    | 88  | 67      | 155    | 465                           |
| North Dakota.....            | 11                              | 4       | 15     | 0                  | 0       | 0      | 7                               | 4       | 11     | 3   | 3       | 6      | 0                             |
| South Dakota.....            | 34                              | 16      | 50     | 0                  | 2       | 2      | 5                               | 12      | 17     | 4   | 6       | 10     | 0                             |
| Nebraska.....                | 100                             | 69      | 169    | 50                 | 26      | 76     | 26                              | 50      | 76     | 22  | 25      | 47     | 15                            |
| Kansas.....                  | 138                             | 94      | 232    | 153                | 70      | 223    | 71                              | 78      | 149    | 23  | 34      | 57     | 62                            |
| Western Division:            |                                 |         |        |                    |         |        |                                 |         |        |   |         |        |                               |
| Montana.....                 | 2                               | 16      | 18     | 1                  | 12      | 13     | 6                               | 2       | 8      | 6   | 1       | 7      | 0                             |
| Wyoming.....                 | 8                               | 6       | 14     | .....              | .....   | .....  | 0                               | 0       | 0      | 0   | 0       | 0      | 0                             |
| Colorado.....                | 21                              | 11      | 32     | 23                 | 27      | 50     | 17                              | 27      | 44     | 10  | 10      | 20     | 35                            |
| New Mexico.....              | 5                               | 2       | 7      | 0                  | 8       | 8      | 10                              | 3       | 13     | 8   | 3       | 11     | 35                            |
| Utah.....                    | 94                              | 71      | 165    | 56                 | 32      | 88     | 36                              | 39      | 75     | 17  | 10      | 27     | 25                            |
| Nevada.....                  | .....                           | .....   | .....  | .....              | .....   | .....  | 0                               | 0       | 0      | 0   | 0       | 0      | 0                             |
| Idaho.....                   | 4                               | 2       | 6      | 1                  | 4       | 5      | 5                               | 4       | 9      | 5   | 0       | 5      | 0                             |
| Washington.....              | 14                              | 21      | 35     | 8                  | 18      | 26     | 27                              | 9       | 36     | 19  | 10      | 29     | 0                             |
| Oregon.....                  | 81                              | 35      | 116    | 78                 | 35      | 113    | 26                              | 33      | 59     | 21  | 27      | 48     | 81                            |
| California.....              | 246                             | 110     | 356    | 225                | 71      | 296    | 190                             | 204     | 394    | 146   | 83      | 229    | 275                           |



TABLE 13.—*Summary of statistics of private secondary schools.*

## STUDENTS PURSUING CERTAIN STUDIES.

| State or Territory.          | Latin. |         |        | Greek. |         |        | French. |         |        | German. |         |        |
|------------------------------|--------|---------|--------|--------|---------|--------|---------|---------|--------|---------|---------|--------|
|                              | Male.  | Female. | Total. | Male.  | Female. | Total. | Male.   | Female. | Total. | Male.   | Female. | Total. |
| United States.....           | 28,210 | 22,846  | 51,056 | 9,318  | 1,982   | 11,300 | 7,916   | 15,017  | 22,933 | 9,723   | 9,297   | 19,020 |
| North Atlantic Division..... | 11,799 | 8,532   | 20,331 | 5,077  | 974     | 6,051  | 5,343   | 7,637   | 12,980 | 5,432   | 4,814   | 10,246 |
| South Atlantic Division..... | 5,518  | 4,597   | 10,115 | 1,299  | 197     | 1,496  | 1,126   | 2,664   | 3,790  | 852     | 772     | 1,624  |
| South Central Division.....  | 5,379  | 5,030   | 10,409 | 1,050  | 367     | 1,417  | 503     | 1,931   | 2,434  | 643     | 888     | 1,531  |
| North Central Division.....  | 4,437  | 3,738   | 8,175  | 1,562  | 346     | 1,908  | 723     | 2,017   | 2,740  | 2,550   | 2,268   | 4,818  |
| Western Division.....        | 1,077  | 949     | 2,026  | 330    | 98      | 428    | 221     | 768     | 989    | 246     | 555     | 801    |
| North Atlantic Division:     |        |         |        |        |         |        |         |         |        |         |         |        |
| Maine.....                   | 553    | 668     | 1,221  | 300    | 143     | 443    | 146     | 265     | 411    | 31      | 53      | 84     |
| New Hampshire.....           | 790    | 343     | 1,133  | 443    | 77      | 520    | 287     | 195     | 482    | 126     | 106     | 232    |
| Vermont.....                 | 427    | 357     | 784    | 132    | 48      | 180    | 124     | 151     | 275    | 42      | 107     | 149    |
| Massachusetts.....           | 1,879  | 1,444   | 3,323  | 874    | 202     | 1,076  | 1,172   | 1,504   | 2,676  | 624     | 789     | 1,413  |
| Rhode Island.....            | 219    | 157     | 376    | 98     | 28      | 126    | 176     | 224     | 400    | 17      | 59      | 76     |
| Connecticut.....             | 772    | 732     | 1,504  | 260    | 96      | 356    | 249     | 642     | 891    | 285     | 449     | 734    |
| New York.....                | 2,686  | 2,032   | 4,718  | 1,206  | 180     | 1,386  | 1,718   | 2,580   | 4,298  | 1,997   | 1,711   | 3,708  |
| New Jersey.....              | 1,646  | 658     | 2,304  | 730    | 73      | 803    | 776     | 665     | 1,411  | 935     | 400     | 1,335  |
| Pennsylvania.....            | 2,827  | 2,141   | 4,968  | 1,034  | 127     | 1,161  | 695     | 1,411   | 2,106  | 1,375   | 1,140   | 2,515  |
| South Atlantic Division:     |        |         |        |        |         |        |         |         |        |         |         |        |
| Delaware.....                | 81     | 89      | 170    | 21     | 7       | 28     | 40      | 79      | 119    | 20      | 43      | 63     |
| Maryland.....                | 563    | 663     | 1,226  | 136    | 21      | 157    | 230     | 668     | 898    | 261     | 234     | 545    |
| District of Columbia.....    | 193    | 106     | 299    | 82     | 1       | 83     | 63      | 382     | 450    | 55      | 110     | 165    |
| Virginia.....                | 1,206  | 748     | 1,954  | 191    | 10      | 201    | 316     | 398     | 714    | 262     | 124     | 386    |
| West Virginia.....           | 117    | 147     | 264    | 35     | 5       | 40     | 18      | 42      | 60     | 37      | 15      | 52     |
| North Carolina.....          | 1,631  | 1,103   | 2,734  | 434    | 66      | 500    | 150     | 411     | 561    | 116     | 89      | 205    |
| South Carolina.....          | 553    | 344     | 897    | 139    | 17      | 156    | 190     | 229     | 419    | 71      | 54      | 105    |
| Georgia.....                 | 1,121  | 1,313   | 2,434  | 254    | 58      | 312    | 111     | 389     | 500    | 22      | 61      | 83     |
| Florida.....                 | 53     | 84      | 137    | 7      | 12      | 19     | 3       | 66      | 69     | 8       | 12      | 20     |
| South Central Division:      |        |         |        |        |         |        |         |         |        |         |         |        |
| Kentucky.....                | 808    | 831     | 1,639  | 214    | 57      | 271    | 54      | 350     | 404    | 209     | 297     | 506    |
| Tennessee.....               | 1,634  | 1,309   | 2,943  | 404    | 134     | 538    | 75      | 206     | 281    | 117     | 93      | 210    |
| Alabama.....                 | 822    | 620     | 1,442  | 143    | 52      | 195    | 88      | 246     | 334    | 58      | 74      | 132    |
| Mississippi.....             | 528    | 567     | 1,095  | 99     | 34      | 133    | 40      | 74      | 114    | 13      | 41      | 54     |
| Louisiana.....               | 240    | 257     | 497    | 32     | 17      | 49     | 160     | 753     | 913    | 12      | 86      | 98     |
| Texas.....                   | 893    | 1,092   | 1,985  | 92     | 58      | 150    | 50      | 262     | 312    | 173     | 236     | 409    |
| Arkansas.....                | 403    | 276     | 679    | 56     | 7       | 63     | 25      | 36      | 71     | 57      | 49      | 106    |
| Oklahoma.....                | 20     | 32      | 52     | 6      | 6       | 12     | 0       | 2       | 2      | 0       | 7       | 7      |
| Indian Territory.....        | 31     | 46      | 77     | 4      | 2       | 6      | 1       | 2       | 3      | 4       | 5       | 9      |
| North Central Division:      |        |         |        |        |         |        |         |         |        |         |         |        |
| Ohio.....                    | 578    | 588     | 1,166  | 184    | 30      | 214    | 116     | 394     | 510    | 324     | 374     | 698    |
| Indiana.....                 | 221    | 339     | 560    | 53     | 10      | 63     | 38      | 228     | 266    | 138     | 198     | 336    |
| Illinois.....                | 562    | 690     | 1,252  | 157    | 72      | 229    | 121     | 496     | 617    | 261     | 390     | 651    |
| Michigan.....                | 161    | 160     | 321    | 56     | 46      | 102    | 60      | 109     | 169    | 210     | 157     | 367    |
| Wisconsin.....               | 566    | 208     | 774    | 345    | 6       | 351    | 133     | 102     | 235    | 540     | 240     | 780    |
| Minnesota.....               | 264    | 216     | 480    | 60     | 16      | 76     | 20      | 133     | 153    | 175     | 153     | 328    |
| Iowa.....                    | 565    | 359     | 924    | 247    | 61      | 308    | 102     | 11      | 113    | 337     | 186     | 523    |
| Missouri.....                | 953    | 779     | 1,732  | 249    | 71      | 320    | 104     | 400     | 504    | 442     | 375     | 817    |
| North Dakota.....            | 13     | 6       | 19     | 4      | 0       | 4      | .....   | 10      | 10     | 0       | 4       | 4      |
| South Dakota.....            | 50     | 30      | 80     | 14     | 5       | 19     | 7       | 27      | 34     | 17      | 29      | 46     |
| Nebraska.....                | 146    | 153     | 299    | 33     | 12      | 45     | 1       | 28      | 29     | 27      | 67      | 94     |
| Kansas.....                  | 358    | 210     | 568    | 160    | 17      | 177    | 21      | 79      | 100    | 79      | 95      | 174    |
| Western Division:            |        |         |        |        |         |        |         |         |        |         |         |        |
| Montana.....                 | 16     | 19      | 35     | 1      | .....   | 1      | 3       | 23      | 26     | 3       | 6       | 9      |
| Wyoming.....                 | 5      | 16      | 21     | 2      | 1       | 3      | .....   | .....   | .....  | .....   | .....   | .....  |
| Colorado.....                | 44     | 82      | 126    | 15     | 7       | 22     | 6       | 30      | 36     | 25      | 79      | 104    |
| New Mexico.....              | 20     | 17      | 37     | 1      | .....   | 1      | 1       | .....   | 1      | 4       | .....   | 4      |
| Arizona.....                 | .....  | .....   | .....  | .....  | .....   | .....  | .....   | .....   | .....  | .....   | .....   | .....  |
| Utah.....                    | 109    | 165     | 274    | 30     | 6       | 36     | 10      | 33      | 43     | 43      | 60      | 103    |
| Nevada.....                  | .....  | .....   | .....  | .....  | .....   | .....  | .....   | .....   | .....  | .....   | .....   | .....  |
| Idaho.....                   | 21     | 27      | 48     | .....  | 1       | 1      | .....   | .....   | .....  | 4       | 13      | 17     |
| Washington.....              | 101    | 97      | 198    | 64     | 4       | 68     | 37      | 94      | 131    | 25      | 59      | 84     |
| Oregon.....                  | 151    | 131     | 282    | 46     | 23      | 69     | 33      | 62      | 95     | 40      | 95      | 135    |
| California.....              | 610    | 395     | 1,005  | 171    | 56      | 227    | 131     | 526     | 657    | 102     | 243     | 345    |

TABLE 14.—*Summary of statistics of private secondary schools.*

## STUDENTS PURSUING CERTAIN STUDIES.

| State or Territory.          | Algebra. |         |        | Geometry. |         |        | Trigonometry. |         |        | Astronomy. |         |        |
|------------------------------|----------|---------|--------|-----------|---------|--------|---------------|---------|--------|------------|---------|--------|
|                              | Male.    | Female. | Total. | Male.     | Female. | Total. | Male.         | Female. | Total. | Male.      | Female. | Total. |
| United States.....           | 29,705   | 25,772  | 55,477 | 15,163    | 10,948  | 26,111 | 3,938         | 2,377   | 6,375  | 2,426      | 5,494   | 7,920  |
| North Atlantic Division..... | 11,290   | 8,144   | 19,434 | 6,754     | 3,830   | 10,584 | 1,568         | 326     | 1,894  | 1,071      | 2,068   | 3,079  |
| South Atlantic Division..... | 5,816    | 5,010   | 10,826 | 2,421     | 1,674   | 4,095  | 644           | 426     | 1,070  | 288        | 686     | 924    |
| South Central Division.....  | 6,914    | 6,923   | 13,837 | 2,919     | 2,969   | 5,888  | 906           | 946     | 1,852  | 411        | 1,370   | 1,781  |
| North Central Division.....  | 4,458    | 4,391   | 8,849  | 2,308     | 1,932   | 4,240  | 706           | 580     | 1,286  | 606        | 1,068   | 1,674  |
| Western Division.....        | 1,227    | 1,304   | 2,531  | 761       | 543     | 1,304  | 174           | 99      | 273    | 100        | 362     | 462    |
| North Atlantic Division:     |          |         |        |           |         |        |               |         |        |            |         |        |
| Maine.....                   | 680      | 740     | 1,420  | 318       | 272     | 590    | 12            | 6       | 18     | 76         | 130     | 206    |
| New Hampshire.....           | 471      | 275     | 746    | 302       | 139     | 441    | 70            | 22      | 92     | 68         | 53      | 121    |
| Vermont.....                 | 367      | 301     | 668    | 203       | 168     | 371    | 28            | 7       | 35     | 85         | 104     | 189    |
| Massachusetts.....           | 1,612    | 1,109   | 2,721  | 1,095     | 663     | 1,758  | 158           | 63      | 221    | 160        | 223     | 383    |
| Rhode Island.....            | 201      | 147     | 348    | 155       | 64      | 219    | 68            | 8       | 71     | 15         | 35      | 50     |
| Connecticut.....             | 612      | 616     | 1,258  | 381       | 297     | 678    | 77            | 10      | 87     | 34         | 165     | 199    |
| New York.....                | 2,866    | 2,179   | 5,045  | 1,894     | 1,038   | 2,932  | 481           | 71      | 552    | 233        | 638     | 871    |
| New Jersey.....              | 1,806    | 664     | 2,470  | 1,074     | 355     | 1,409  | 366           | 12      | 378    | 78         | 151     | 229    |
| Pennsylvania.....            | 2,645    | 2,113   | 4,758  | 1,332     | 854     | 2,186  | 313           | 127     | 440    | 322        | 509     | 831    |
| South Atlantic Division:     |          |         |        |           |         |        |               |         |        |            |         |        |
| Delaware.....                | 56       | 87      | 143    | 21        | 41      | 62     | 9             | 0       | 9      | .....      | .....   | .....  |
| Maryland.....                | 614      | 699     | 1,313  | 393       | 305     | 698    | 120           | 58      | 178    | 33         | 86      | 119    |
| District of Columbia.....    | 206      | 219     | 425    | 126       | 88      | 214    | 41            | 3       | 44     | .....      | 176     | 176    |
| Virginia.....                | 1,150    | 705     | 1,855  | 554       | 163     | 717    | 190           | 71      | 261    | 38         | 63      | 101    |
| West Virginia.....           | 154      | 171     | 325    | 42        | 36      | 78     | 10            | 5       | 15     | 15         | 19      | 34     |
| North Carolina.....          | 1,657    | 1,077   | 2,734  | 507       | 214     | 721    | 88            | 48      | 136    | 76         | 97      | 173    |
| South Carolina.....          | 608      | 523     | 1,131  | 178       | 248     | 426    | 29            | 25      | 54     | 15         | 84      | 99     |
| Georgia.....                 | 1,326    | 1,409   | 2,735  | 588       | 544     | 1,132  | 157           | 213     | 370    | 59         | 123     | 182    |
| Florida.....                 | 45       | 120     | 165    | 12        | 35      | 47     | 0             | 3       | 3      | 2          | 38      | 40     |
| South Central Division:      |          |         |        |           |         |        |               |         |        |            |         |        |
| Kentucky.....                | 1,043    | 928     | 1,971  | 388       | 316     | 704    | 196           | 111     | 307    | 28         | 189     | 217    |
| Tennessee.....               | 1,818    | 1,618   | 3,436  | 729       | 584     | 1,313  | 205           | 198     | 403    | 122        | 248     | 370    |
| Alabama.....                 | 1,136    | 871     | 2,007  | 577       | 385     | 962    | 167           | 120     | 287    | 57         | 88      | 145    |
| Mississippi.....             | 732      | 875     | 1,607  | 319       | 349     | 668    | 106           | 133     | 239    | 55         | 104     | 159    |
| Louisiana.....               | 275      | 618     | 893    | 90        | 314     | 404    | 16            | 101     | 117    | 15         | 411     | 426    |
| Texas.....                   | 1,324    | 1,595   | 2,919  | 624       | 875     | 1,499  | 152           | 239     | 391    | 70         | 259     | 329    |
| Arkansas.....                | 533      | 350     | 883    | 154       | 103     | 257    | 47            | 23      | 70     | 62         | 46      | 108    |
| Oklahoma.....                | 8        | 21      | 29     | 2         | 10      | 12     | 0             | 10      | 10     | 0          | 15      | 15     |
| Indian Territory.....        | 45       | 47      | 92     | 36        | 33      | 69     | 17            | 11      | 28     | 2          | 10      | 12     |
| North Central Division:      |          |         |        |           |         |        |               |         |        |            |         |        |
| Ohio.....                    | 492      | 551     | 1,043  | 244       | 259     | 483    | 81            | 91      | 172    | 31         | 139     | 170    |
| Indiana.....                 | 221      | 315     | 536    | 123       | 155     | 278    | 32            | 76      | 108    | 7          | 92      | 99     |
| Illinois.....                | 539      | 759     | 1,298  | 325       | 336     | 661    | 45            | 102     | 147    | 65         | 177     | 242    |
| Michigan.....                | 214      | 285     | 499    | 112       | 130     | 242    | 34            | 43      | 77     | 18         | 83      | 101    |
| Wisconsin.....               | 536      | 229     | 765    | 349       | 75      | 424    | 112           | 28      | 140    | 70         | 39      | 109    |
| Minnesota.....               | 308      | 308     | 616    | 145       | 125     | 270    | 8             | 8       | 16     | 32         | 80      | 112    |
| Iowa.....                    | 630      | 465     | 1,095  | 356       | 262     | 618    | 145           | 41      | 186    | 168        | 91      | 259    |
| Missouri.....                | 1,071    | 1,072   | 2,143  | 438       | 420     | 858    | 180           | 164     | 344    | 175        | 293     | 468    |
| North Dakota.....            | 21       | 36      | 57     | 0         | 11      | 11     | 1             | 0       | 1      | 0          | 3       | 3      |
| South Dakota.....            | 51       | 32      | 83     | 28        | 15      | 43     | 3             | 1       | 4      | .....      | .....   | .....  |
| Nebraska.....                | 133      | 142     | 275    | 73        | 80      | 153    | 16            | 10      | 26     | 8          | 18      | 26     |
| Kansas.....                  | 242      | 197     | 439    | 115       | 84      | 199    | 49            | 16      | 65     | 32         | 53      | 85     |
| Western Division:            |          |         |        |           |         |        |               |         |        |            |         |        |
| Montana.....                 | 16       | 37      | 53     | 8         | 3       | 11     | 6             | .....   | 6      | .....      | 1       | 1      |
| Wyoming.....                 | 14       | 8       | 22     | 4         | 2       | 6      | .....         | .....   | .....  | .....      | .....   | .....  |
| Colorado.....                | 41       | 70      | 111    | 25        | 32      | 57     | 6             | 4       | 10     | 0          | 6       | 6      |
| New Mexico.....              | 26       | 32      | 58     | 10        | 5       | 15     | .....         | 1       | 1      | 5          | 3       | 8      |
| Arizona.....                 | .....    | .....   | .....  | .....     | .....   | .....  | .....         | .....   | .....  | .....      | .....   | .....  |
| Utah.....                    | 180      | 146     | 326    | 79        | 65      | 144    | 20            | 11      | 31     | 15         | 30      | 45     |
| Nevada.....                  | .....    | 14      | 14     | .....     | 14      | 14     | .....         | .....   | .....  | .....      | .....   | .....  |
| Idaho.....                   | 23       | 32      | 55     | 7         | 14      | 21     | 2             | 1       | 3      | .....      | .....   | .....  |
| Washington.....              | 94       | 159     | 253    | 43        | 48      | 91     | 9             | 19      | 28     | 2          | 32      | 34     |
| Oregon.....                  | 123      | 131     | 254    | 67        | 47      | 114    | 14            | 13      | 27     | 15         | 44      | 59     |
| California.....              | 710      | 675     | 1,385  | 518       | 313     | 831    | 117           | 50      | 167    | 63         | 246     | 309    |

TABLE 15.—*Summary of statistics of private secondary schools.*

## STUDENTS PURSUING CERTAIN STUDIES.

| State or Territory.          | Physics. |         |         | Chemistry. |         |         | Physical geog-<br>raphy. |         |         | Geology. |         |        |
|------------------------------|----------|---------|---------|------------|---------|---------|--------------------------|---------|---------|----------|---------|--------|
|                              | Male.    | Female. | Total.  | Male.      | Female. | Total.  | Male.                    | Female. | Total.  | Male.    | Female. | Total. |
| United States.....           | 12, 052  | 11, 996 | 24, 048 | 5, 785     | 5, 798  | 11, 583 | 9, 929                   | 11, 553 | 21, 482 | 3, 309   | 5, 069  | 8, 378 |
| North Atlantic Division..... | 4, 828   | 3, 612  | 8, 440  | 2, 755     | 1, 983  | 4, 738  | 3, 109                   | 3, 600  | 6, 709  | 1, 290   | 1, 747  | 3, 037 |
| South Atlantic Division..... | 1, 700   | 1, 977  | 3, 677  | 880        | 988     | 1, 868  | 2, 082                   | 2, 251  | 4, 333  | 302      | 597     | 899    |
| South Central Division.....  | 2, 750   | 3, 576  | 6, 326  | 735        | 1, 375  | 2, 110  | 2, 196                   | 2, 677  | 4, 873  | 897      | 1, 370  | 2, 267 |
| North Central Division.....  | 2, 190   | 2, 191  | 4, 381  | 1, 103     | 1, 137  | 2, 240  | 2, 253                   | 2, 368  | 4, 621  | 724      | 1, 029  | 1, 753 |
| Western Division.....        | 584      | 640     | 1, 224  | 312        | 315     | 627     | 289                      | 657     | 946     | 96       | 326     | 422    |
| North Atlantic Division:     |          |         |         |            |         |         |                          |         |         |          |         |        |
| Maine.....                   | 225      | 265     | 490     | 157        | 196     | 353     | 260                      | 248     | 448     | 70       | 115     | 185    |
| New Hampshire.....           | 208      | 87      | 295     | 152        | 91      | 243     | 95                       | 70      | 165     | 54       | 35      | 89     |
| Vermont.....                 | 197      | 148     | 345     | 112        | 64      | 176     | 203                      | 222     | 425     | 92       | 84      | 176    |
| Massachusetts.....           | 704      | 431     | 1, 135  | 331        | 296     | 627     | 265                      | 348     | 613     | 96       | 231     | 327    |
| Rhode Island.....            | 54       | 64      | 118     | 25         | 35      | 60      | 21                       | 58      | 79      | 30       | 69      | 99     |
| Connecticut.....             | 238      | 261     | 499     | 111        | 133     | 244     | 153                      | 240     | 393     | 77       | 142     | 219    |
| New York.....                | 1, 339   | 1, 134  | 2, 473  | 774        | 619     | 1, 423  | 928                      | 1, 144  | 2, 072  | 285      | 554     | 839    |
| New Jersey.....              | 765      | 292     | 1, 057  | 529        | 120     | 649     | 402                      | 217     | 649     | 372      | 189     | 561    |
| Pennsylvania.....            | 1, 098   | 930     | 2, 028  | 564        | 399     | 963     | 842                      | 1, 023  | 1, 865  | 214      | 328     | 542    |
| South Atlantic Division:     |          |         |         |            |         |         |                          |         |         |          |         |        |
| Delaware.....                | 21       | 34      | 55      | 21         | 16      | 37      | 30                       | 50      | 80      | .....    | .....   | .....  |
| Maryland.....                | 183      | 334     | 517     | 153        | 181     | 334     | 260                      | 215     | 475     | 13       | 104     | 117    |
| District of Columbia.....    | 68       | 251     | 319     | 29         | 103     | 132     | 28                       | 212     | 240     | .....    | 57      | 57     |
| Virginia.....                | 361      | 323     | 684     | 223        | 122     | 345     | 339                      | 322     | 661     | 59       | 91      | 150    |
| West Virginia.....           | 58       | 39      | 97      | 15         | 16      | 31      | 66                       | 96      | 162     | 41       | 16      | 57     |
| North Carolina.....          | 493      | 362     | 855     | 150        | 168     | 318     | 693                      | 542     | 1, 241  | 124      | 94      | 218    |
| South Carolina.....          | 103      | 187     | 290     | 88         | 103     | 191     | 222                      | 251     | 473     | 18       | 62      | 80     |
| Georgia.....                 | 345      | 370     | 715     | 189        | 248     | 437     | 393                      | 428     | 821     | 47       | 141     | 188    |
| Florida.....                 | 8        | 77      | 85      | 12         | 31      | 43      | 45                       | 135     | 180     | .....    | 32      | 32     |
| South Central Division:      |          |         |         |            |         |         |                          |         |         |          |         |        |
| Kentucky.....                | 256      | 334     | 590     | 106        | 166     | 272     | 271                      | 383     | 654     | 99       | 161     | 260    |
| Tennessee.....               | 508      | 478     | 986     | 138        | 211     | 349     | 439                      | 455     | 894     | 353      | 496     | 849    |
| Alabama.....                 | 420      | 421     | 841     | 124        | 132     | 256     | 321                      | 230     | 551     | 104      | 92      | 196    |
| Mississippi.....             | 599      | 692     | 1, 291  | 101        | 142     | 243     | 273                      | 276     | 549     | 96       | 126     | 222    |
| Louisiana.....               | 110      | 483     | 593     | 54         | 260     | 314     | 67                       | 482     | 549     | 54       | 150     | 204    |
| Texas.....                   | 605      | 1, 000  | 1, 605  | 180        | 425     | 605     | 508                      | 640     | 1, 148  | 166      | 314     | 480    |
| Arkansas.....                | 201      | 112     | 313     | 17         | 28      | 45      | 305                      | 172     | 477     | 25       | 16      | 41     |
| Oklahoma.....                | 0        | 10      | 10      | .....      | .....   | .....   | 0                        | 18      | 18      | 0        | 15      | 15     |
| Indian Territory.....        | 51       | 46      | 97      | 15         | 11      | 26      | 12                       | 21      | 33      | .....    | .....   | .....  |
| North Central Division:      |          |         |         |            |         |         |                          |         |         |          |         |        |
| Ohio.....                    | 213      | 284     | 497     | 103        | 165     | 268     | 200                      | 386     | 586     | 41       | 144     | 185    |
| Indiana.....                 | 78       | 183     | 261     | 39         | 114     | 153     | 116                      | 262     | 378     | 30       | 98      | 128    |
| Illinois.....                | 255      | 372     | 627     | 92         | 210     | 302     | 566                      | 293     | 859     | 41       | 150     | 191    |
| Michigan.....                | 67       | 156     | 223     | 49         | 106     | 155     | 66                       | 123     | 189     | 44       | 99      | 143    |
| Wisconsin.....               | 325      | 97      | 422     | 209        | 43      | 252     | 310                      | 137     | 447     | 94       | 47      | 141    |
| Minnesota.....               | 104      | 97      | 201     | 53         | 38      | 91      | 143                      | 137     | 280     | 62       | 43      | 105    |
| Iowa.....                    | 372      | 197     | 569     | 203        | 82      | 285     | 222                      | 216     | 438     | 201      | 93      | 294    |
| Missouri.....                | 537      | 573     | 1, 110  | 239        | 293     | 532     | 478                      | 557     | 1, 035  | 162      | 272     | 434    |
| North Dakota.....            | 8        | 17      | 25      | 1          | 10      | 11      | 1                        | 18      | 19      | 0        | 4       | 4      |
| South Dakota.....            | 26       | 17      | 43      | .....      | .....   | .....   | 27                       | 33      | 60      | 5        | 3       | 8      |
| Nebraska.....                | 68       | 86      | 154     | 25         | 24      | 49      | 30                       | 80      | 110     | 10       | 20      | 30     |
| Kansas.....                  | 137      | 112     | 249     | 90         | 52      | 142     | 94                       | 126     | 220     | 34       | 56      | 90     |
| Western Division:            |          |         |         |            |         |         |                          |         |         |          |         |        |
| Montana.....                 | 12       | 14      | 26      | 12         | 3       | 15      | .....                    | 15      | 15      | 4        | 7       | 11     |
| Wyoming.....                 | .....    | .....   | .....   | 6          | .....   | 6       | .....                    | 6       | 6       | .....    | .....   | .....  |
| Colorado.....                | 32       | 29      | 61      | 20         | 21      | 41      | 22                       | 43      | 65      | 0        | 4       | 4      |
| New Mexico.....              | 15       | 31      | 46      | 10         | 17      | 27      | 17                       | 14      | 31      | 5        | 8       | 13     |
| Arizona.....                 | .....    | .....   | .....   | .....      | .....   | .....   | .....                    | .....   | .....   | .....    | .....   | .....  |
| Utah.....                    | 68       | 60      | 128     | 65         | 34      | 99      | 42                       | 85      | 127     | 22       | 46      | 68     |
| Nevada.....                  | .....    | 2       | 2       | .....      | .....   | .....   | .....                    | 14      | 14      | .....    | .....   | .....  |
| Idaho.....                   | 6        | 4       | 10      | .....      | .....   | .....   | 2                        | 7       | 9       | .....    | .....   | .....  |
| Washington.....              | 53       | 62      | 115     | 15         | 55      | 70      | 29                       | 52      | 81      | 15       | 59      | 74     |
| Oregon.....                  | 50       | 57      | 107     | 18         | 27      | 45      | 33                       | 57      | 90      | 5        | 13      | 18     |
| California.....              | 348      | 381     | 729     | 166        | 158     | 324     | 144                      | 364     | 508     | 45       | 189     | 234    |



TABLE 16.—*Summary of statistics of private secondary schools.*

## STUDENTS PURSUING CERTAIN STUDIES.

| State or Territory.          | Physiology. |         |        | Psychology. |         |        | Rhetoric. |         |        | History. |         |        |
|------------------------------|-------------|---------|--------|-------------|---------|--------|-----------|---------|--------|----------|---------|--------|
|                              | Male.       | Female. | Total. | Male.       | Female. | Total. | Male.     | Female. | Total. | Male.    | Female. | Total. |
| United States.....           | 11,791      | 14,651  | 26,442 | 2,065       | 4,006   | 6,071  | 15,837    | 18,630  | 34,467 | 18,884   | 23,251  | 42,135 |
| North Atlantic Division..... | 3,824       | 4,357   | 8,181  | 637         | 1,435   | 2,072  | 5,901     | 6,145   | 12,046 | 7,331    | 8,443   | 15,774 |
| South Atlantic Division..... | 1,892       | 2,642   | 4,534  | 175         | 434     | 609    | 2,860     | 3,343   | 6,203  | 3,828    | 4,238   | 8,066  |
| South Central Division.....  | 3,100       | 3,541   | 6,641  | 563         | 1,042   | 1,605  | 3,570     | 4,609   | 8,179  | 3,451    | 4,968   | 8,419  |
| North Central Division.....  | 2,462       | 3,150   | 5,612  | 568         | 830     | 1,398  | 2,692     | 3,441   | 6,133  | 3,343    | 4,159   | 7,502  |
| Western Division.....        | 513         | 961     | 1,474  | 122         | 265     | 387    | 814       | 1,092   | 1,906  | 931      | 1,443   | 2,374  |
| North Atlantic Division:     |             |         |        |             |         |        |           |         |        |          |         |        |
| Maine.....                   | 139         | 214     | 353    | 57          | 98      | 155    | 259       | 425     | 684    | 406      | 501     | 907    |
| New Hampshire.....           | 78          | 120     | 198    | 47          | 56      | 103    | 259       | 178     | 437    | 452      | 223     | 675    |
| Vermont.....                 | 194         | 189     | 383    | 34          | 48      | 82     | 242       | 222     | 464    | 176      | 213     | 389    |
| Massachusetts.....           | 515         | 554     | 1,069  | 55          | 217     | 272    | 805       | 855     | 1,660  | 1,071    | 1,145   | 2,216  |
| Rhode Island.....            | 46          | 71      | 117    | 46          | 46      | 92     | 213       | 91      | 304    | 94       | 180     | 274    |
| Connecticut.....             | 130         | 313     | 443    | 10          | 119     | 129    | 420       | 529     | 949    | 564      | 736     | 1,300  |
| New York.....                | 1,147       | 1,388   | 2,535  | 149         | 360     | 509    | 1,416     | 1,767   | 3,183  | 2,200    | 2,741   | 4,941  |
| New Jersey.....              | 425         | 310     | 735    | 55          | 101     | 156    | 975       | 586     | 1,561  | 895      | 634     | 1,529  |
| Pennsylvania.....            | 1,150       | 1,198   | 2,348  | 230         | 390     | 620    | 1,312     | 1,492   | 2,804  | 1,473    | 2,070   | 3,543  |
| South Atlantic Division:     |             |         |        |             |         |        |           |         |        |          |         |        |
| Delaware.....                | 10          | 18      | 28     | 0           | 5       | 5      | 31        | 59      | 90     | 45       | 87      | 132    |
| Maryland.....                | 105         | 288     | 393    | 53          | 53      | 106    | 244       | 395     | 639    | 410      | 754     | 1,164  |
| District of Columbia.....    | 9           | 119     | 128    | 28          | 28      | 56     | 48        | 327     | 375    | 248      | 385     | 633    |
| Virginia.....                | 262         | 367     | 629    | 37          | 66      | 103    | 600       | 484     | 1,084  | 736      | 650     | 1,386  |
| West Virginia.....           | 82          | 117     | 199    | 14          | 20      | 34     | 95        | 112     | 207    | 106      | 148     | 254    |
| North Carolina.....          | 693         | 704     | 1,397  | 63          | 84      | 147    | 793       | 703     | 1,496  | 1,082    | 817     | 1,899  |
| South Carolina.....          | 167         | 305     | 472    | 25          | 86      | 111    | 265       | 246     | 511    | 376      | 353     | 729    |
| Georgia.....                 | 516         | 575     | 1,091  | 26          | 70      | 96     | 772       | 921     | 1,693  | 779      | 916     | 1,695  |
| Florida.....                 | 48          | 149     | 197    | 10          | 22      | 32     | 12        | 96      | 108    | 46       | 128     | 174    |
| South Central Division:      |             |         |        |             |         |        |           |         |        |          |         |        |
| Kentucky.....                | 498         | 555     | 1,053  | 74          | 144     | 218    | 554       | 820     | 1,374  | 705      | 881     | 1,586  |
| Tennessee.....               | 558         | 615     | 1,173  | 69          | 156     | 225    | 1,082     | 1,020   | 2,102  | 827      | 1,018   | 1,845  |
| Alabama.....                 | 418         | 418     | 836    | 35          | 45      | 80     | 553       | 522     | 1,075  | 431      | 481     | 912    |
| Mississippi.....             | 477         | 572     | 1,049  | 85          | 129     | 214    | 387       | 484     | 871    | 414      | 528     | 942    |
| Louisiana.....               | 100         | 291     | 391    | 8           | 150     | 158    | 114       | 606     | 720    | 175      | 675     | 850    |
| Texas.....                   | 545         | 744     | 1,289  | 169         | 315     | 484    | 538       | 893     | 1,431  | 574      | 1,069   | 1,643  |
| Arkansas.....                | 455         | 302     | 757    | 117         | 76      | 193    | 302       | 200     | 502    | 305      | 258     | 563    |
| Oklahoma.....                | 0           | 18      | 18     | 6           | 22      | 28     | 0         | 21      | 21     | 0        | 15      | 15     |
| Indian Territory.....        | 19          | 26      | 45     | 5           | 5       | 10     | 40        | 43      | 83     | 20       | 43      | 63     |
| North Central Division:      |             |         |        |             |         |        |           |         |        |          |         |        |
| Ohio.....                    | 240         | 389     | 629    | 45          | 96      | 141    | 196       | 519     | 715    | 339      | 630     | 969    |
| Indiana.....                 | 98          | 263     | 361    | 42          | 60      | 102    | 116       | 344     | 460    | 144      | 403     | 547    |
| Illinois.....                | 264         | 492     | 756    | 59          | 112     | 171    | 350       | 505     | 855    | 627      | 785     | 1,412  |
| Michigan.....                | 75          | 231     | 306    | 29          | 64      | 93     | 137       | 213     | 350    | 188      | 326     | 514    |
| Wisconsin.....               | 267         | 182     | 449    | 6           | 18      | 24     | 474       | 206     | 680    | 426      | 195     | 621    |
| Minnesota.....               | 208         | 282     | 490    | 29          | 20      | 49     | 125       | 210     | 335    | 160      | 288     | 448    |
| Iowa.....                    | 353         | 237     | 590    | 153         | 66      | 219    | 444       | 354     | 798    | 394      | 256     | 650    |
| Missouri.....                | 683         | 760     | 1,443  | 156         | 307     | 463    | 548       | 781     | 1,329  | 688      | 915     | 1,603  |
| North Dakota.....            | 8           | 20      | 28     | 6           | 5       | 11     | 13        | 20      | 33     | 8        | 38      | 46     |
| South Dakota.....            | 70          | 47      | 117    | 1           | 9       | 10     | 21        | 22      | 43     | 36       | 37      | 73     |
| Nebraska.....                | 48          | 68      | 116    | 1           | 12      | 13     | 72        | 120     | 192    | 50       | 125     | 175    |
| Kansas.....                  | 148         | 179     | 327    | 41          | 61      | 102    | 196       | 147     | 343    | 283      | 161     | 444    |
| Western Division:            |             |         |        |             |         |        |           |         |        |          |         |        |
| Montana.....                 | 5           | 37      | 42     | .....       | .....   | .....  | 16        | 34      | 50     | 10       | 18      | 28     |
| Wyoming.....                 | 5           | 18      | 23     | .....       | .....   | .....  | 6         | 15      | 21     | .....    | 16      | 16     |
| Colorado.....                | 25          | 41      | 66     | .....       | .....   | .....  | 30        | 45      | 75     | 31       | 56      | 87     |
| New Mexico.....              | 34          | 42      | 76     | .....       | .....   | .....  | 13        | 24      | 37     | 23       | 27      | 50     |
| Arizona.....                 | .....       | .....   | .....  | .....       | .....   | .....  | .....     | .....   | .....  | .....    | .....   | .....  |
| Utah.....                    | 68          | 92      | 160    | 82          | 107     | 189    | 136       | 143     | 279    | 123      | 163     | 286    |
| Nevada.....                  | .....       | .....   | .....  | .....       | .....   | .....  | .....     | 7       | 7      | .....    | 9       | 9      |
| Idaho.....                   | .....       | 8       | 8      | 5           | 12      | 17     | 12        | 10      | 22     | 12       | 17      | 29     |
| Washington.....              | 82          | 117     | 199    | 14          | 20      | 34     | 95        | 112     | 207    | 106      | 148     | 254    |
| Oregon.....                  | 53          | 101     | 154    | 1           | 19      | 20     | 77        | 93      | 170    | 128      | 183     | 311    |
| California.....              | 246         | 505     | 751    | 20          | 107     | 127    | 429       | 609     | 1,038  | 498      | 806     | 1,304  |



TABLE 17.—Percentages for private secondary schools.

## STUDENTS AND COURSES OF STUDY.

| State or Territory.           | Total number of second-ary students. | Per cent to total number. |         |                                 |                                  |                    | Per cent of num-ber grad-uating prepared for col-lege. |
|-------------------------------|--------------------------------------|---------------------------|---------|---------------------------------|----------------------------------|--------------------|--|
|                               |                                      | Male.                     | Female. | Classical preparatory students. | Scientific preparatory students. | Graduates in 1895. |  |
| United States .....           | 118,347                              | 48.46                     | 51.54   | 17.30                           | 9.78                             | 10.11              | 47.93  |
| North Atlantic Division ..... | 42,498                               | 51.61                     | 48.39   | 20.46                           | 11.25                            | 12.66              | 48.45  |
| South Atlantic Division ..... | 20,970                               | 49.75                     | 50.25   | 18.69                           | 6.50                             | 7.27               | 51.28  |
| South Central Division .....  | 27,072                               | 45.52                     | 54.48   | 16.63                           | 9.80                             | 6.58               | 49.92  |
| North Central Division .....  | 21,774                               | 46.84                     | 53.16   | 11.98                           | 10.01                            | 11.71              | 40.63  |
| Western Division .....        | 6,033                                | 40.91                     | 59.09   | 12.42                           | 9.93                             | 10.58              | 58.93  |
| North Atlantic Division:      |                                      |                           |         |                                 |                                  |                    |  |
| Maine .....                   | 3,322                                | 49.64                     | 50.36   | 20.53                           | 4.27                             | 11.80              | 38.52  |
| New Hampshire .....           | 1,964                                | 61.51                     | 38.49   | 31.42                           | 9.62                             | 16.80              | 52.73  |
| Vermont .....                 | 2,247                                | 50.60                     | 49.40   | 13.44                           | 8.86                             | 13.44              | 27.81  |
| Massachusetts .....           | 6,140                                | 48.47                     | 51.53   | 26.09                           | 12.57                            | 13.66              | 53.75  |
| Rhode Island .....            | 644                                  | 51.71                     | 48.29   | 25.16                           | 4.19                             | 13.97              | 46.67  |
| Connecticut .....             | 2,875                                | 42.33                     | 57.67   | 23.34                           | 8.24                             | 12.31              | 48.59  |
| New York .....                | 11,194                               | 48.95                     | 51.05   | 18.04                           | 10.09                            | 12.81              | 48.75  |
| New Jersey .....              | 4,029                                | 61.50                     | 38.50   | 23.63                           | 21.49                            | 12.61              | 63.19  |
| Pennsylvania .....            | 10,083                               | 54.12                     | 45.88   | 16.76                           | 12.07                            | 12.08              | 45.57  |
| South Atlantic Division:      |                                      |                           |         |                                 |                                  |                    |  |
| Delaware .....                | 291                                  | 46.74                     | 53.26   | 13.40                           | 10.31                            | 12.71              | 56.76  |
| Maryland .....                | 2,006                                | 37.29                     | 62.71   | 8.47                            | 3.99                             | 10.42              | 40.67  |
| District of Columbia .....    | 775                                  | 40.52                     | 59.48   | 20.52                           | 14.58                            | 10.97              | 43.53  |
| Virginia .....                | 3,660                                | 52.79                     | 47.21   | 19.48                           | 8.25                             | 5.96               | 48.62  |
| West Virginia .....           | 723                                  | 46.20                     | 53.80   | 7.61                            | 4.01                             | 4.15               | 43.33  |
| North Carolina .....          | 6,272                                | 54.88                     | 45.12   | 19.34                           | 6.22                             | 5.48               | 54.07  |
| South Carolina .....          | 1,982                                | 47.38                     | 52.62   | 21.85                           | 6.21                             | 10.44              | 57.97  |
| Georgia .....                 | 4,787                                | 50.57                     | 49.43   | 23.19                           | 6.12                             | 7.44               | 58.15  |
| Florida .....                 | 474                                  | 35.02                     | 64.98   | 5.70                            | .42                              | 8.23               | 17.95  |
| South Central Division:       |                                      |                           |         |                                 |                                  |                    |  |
| Kentucky .....                | 4,944                                | 36.95                     | 63.05   | 11.49                           | 6.33                             | 5.97               | 53.90  |
| Tennessee .....               | 6,595                                | 51.36                     | 48.64   | 19.42                           | 12.08                            | 6.29               | 49.40  |
| Alabama .....                 | 3,304                                | 55.18                     | 44.82   | 15.86                           | 12.68                            | 5.11               | 40.24  |
| Mississippi .....             | 3,446                                | 45.39                     | 54.61   | 15.06                           | 11.81                            | 9.02               | 51.77  |
| Louisiana .....               | 1,539                                | 31.51                     | 68.49   | 11.50                           | 2.99                             | 8.84               | 49.26  |
| Texas .....                   | 5,285                                | 42.33                     | 57.67   | 17.90                           | 9.04                             | 6.34               | 46.57  |
| Arkansas .....                | 1,716                                | 51.86                     | 48.14   | 23.48                           | 8.22                             | 3.79               | 41.54  |
| Oklahoma .....                | 59                                   | 35.59                     | 64.41   | 91.53                           | 5.08                             | .....              | .....  |
| Indian Territory .....        | 184                                  | 47.83                     | 52.17   | 16.85                           | 27.17                            | 29.89              | 83.64  |
| North Central Division:       |                                      |                           |         |                                 |                                  |                    |  |
| Ohio .....                    | 2,448                                | 40.36                     | 59.64   | 13.28                           | 12.09                            | 10.70              | 40.46  |
| Indiana .....                 | 1,637                                | 33.90                     | 66.10   | 4.15                            | 1.34                             | 8.74               | 52.45  |
| Illinois .....                | 3,934                                | 46.01                     | 53.99   | 12.71                           | 10.30                            | 11.06              | 51.26  |
| Michigan .....                | 1,067                                | 43.68                     | 56.32   | 17.53                           | 14.06                            | 13.68              | 43.15  |
| Wisconsin .....               | 1,576                                | 62.69                     | 37.31   | 14.66                           | 10.53                            | 17.32              | 38.83  |
| Minnesota .....               | 1,416                                | 52.26                     | 47.74   | 2.68                            | 3.67                             | 14.62              | 31.88  |
| Iowa .....                    | 3,042                                | 48.62                     | 51.38   | 10.49                           | 10.42                            | 12.43              | 32.54  |
| Missouri .....                | 4,277                                | 44.75                     | 55.25   | 11.11                           | 11.01                            | 10.57              | 34.29  |
| North Dakota .....            | 190                                  | 48.95                     | 51.05   | 7.89                            | 0                                | 5.79               | 54.55  |
| South Dakota .....            | 218                                  | 54.13                     | 45.87   | 22.94                           | .92                              | 7.79               | 58.82  |
| Nebraska .....                | 733                                  | 47.48                     | 52.52   | 23.06                           | 10.37                            | 10.37              | 61.84  |
| Kansas .....                  | 1,236                                | 56.55                     | 43.45   | 18.77                           | 18.04                            | 12.05              | 38.25  |
| Western Division:             |                                      |                           |         |                                 |                                  |                    |  |
| Montana .....                 | 124                                  | 27.42                     | 72.58   | 14.52                           | 10.48                            | 6.45               | 87.50  |
| Wyoming .....                 | 72                                   | 47.22                     | 52.78   | 19.44                           | .....                            | 0                  | 0  |
| Colorado .....                | 311                                  | 35.05                     | 64.95   | 10.29                           | 16.08                            | 14.15              | 45.45  |
| New Mexico .....              | 117                                  | 45.30                     | 54.70   | 5.98                            | 6.84                             | 11.11              | 84.62  |
| Arizona .....                 | .....                                | .....                     | .....   | .....                           | .....                            | .....              | .....  |
| Utah .....                    | 1,692                                | 44.86                     | 55.14   | 9.75                            | 5.20                             | 4.43               | 36.00  |
| Nevada .....                  | 14                                   | 0                         | 100.00  | .....                           | .....                            | 0                  | 2  |
| Idaho .....                   | 79                                   | 37.97                     | 62.03   | 7.59                            | 6.33                             | 11.39              | 55.56  |
| Washington .....              | 728                                  | 29.26                     | 70.74   | 4.81                            | 3.57                             | 4.95               | 80.56  |
| Oregon .....                  | 594                                  | 48.82                     | 51.18   | 19.53                           | 19.02                            | 9.93               | 81.36  |
| California .....              | 2,302                                | 41.09                     | 58.91   | 15.46                           | 12.86                            | 17.12              | 58.12  |

TABLE 18.—Percentages for private secondary schools.

PER CENT OF STUDENTS IN CERTAIN STUDIES.

| State or Territory.        | Per cent to total number of secondary students. |        |         |         |          |           |               | Astronomy. |
|----------------------------|---|--------|---------|---------|----------|-----------|---------------|------------|
|                            | Latin.  | Greek. | French. | German. | Algebra. | Geometry. | Trigonometry. |            |
| United States.....         | 43.14   | 9.55   | 19.38   | 16.07   | 46.83    | 22.06     | 5.39          | 6.69       |
| North Atlantic Division .. | 47.84   | 14.24  | 30.54   | 24.11   | 45.73    | 24.90     | 4.46          | 7.25       |
| South Atlantic Division .. | 48.24   | 7.13   | 18.07   | 7.74    | 51.63    | 19.53     | 5.10          | 4.41       |
| South Central Division.... | 38.45   | 5.23   | 8.99    | 5.66    | 51.11    | 21.75     | 6.84          | 6.58       |
| North Central Division.... | 37.55   | 8.76   | 12.58   | 22.13   | 40.64    | 19.47     | 5.91          | 7.76       |
| Western Division.....      | 33.58   | 7.09   | 16.39   | 13.28   | 41.95    | 21.61     | 4.52          | 7.66       |
| North Atlantic Division:   |   |        |         |         |          |           |               |            |
| Maine.....                 | 36.75   | 13.34  | 12.37   | 2.53    | 42.75    | 17.76     | .54           | 6.29       |
| New Hampshire.....         | 57.68   | 26.48  | 24.54   | 11.81   | 37.98    | 22.45     | 4.68          | 6.16       |
| Vermont.....               | 34.89   | 8.01   | 12.24   | 6.63    | 29.73    | 16.51     | 1.56          | 8.41       |
| Massachusetts.....         | 54.12   | 17.52  | 43.58   | 23.01   | 44.32    | 28.63     | 3.60          | 6.24       |
| Rhode Island.....          | 58.38   | 19.56  | 62.11   | 11.80   | 54.04    | 34.01     | 11.02         | 7.76       |
| Connecticut.....           | 52.31   | 12.38  | 30.99   | 25.53   | 43.76    | 23.58     | 3.03          | 6.02       |
| New York.....              | 42.15   | 12.38  | 38.40   | 33.12   | 45.07    | 26.19     | 4.93          | 7.78       |
| New Jersey.....            | 57.18   | 19.93  | 35.76   | 33.13   | 61.31    | 34.97     | 9.38          | 5.68       |
| Pennsylvania.....          | 49.27   | 11.51  | 20.89   | 24.94   | 47.19    | 21.68     | 4.36          | 8.24       |
| South Atlantic Division:   |   |        |         |         |          |           |               |            |
| Delaware.....              | 58.42   | 9.62   | 40.89   | 21.65   | 49.14    | 21.31     | 3.09          | .....      |
| Maryland.....              | 61.12   | 7.83   | 44.77   | 27.17   | 65.45    | 34.80     | 8.87          | 5.93       |
| District of Columbia....   | 38.58   | 10.71  | 58.06   | 21.29   | 54.84    | 27.61     | 5.68          | 22.71      |
| Virginia.....              | 53.39   | 5.49   | 19.51   | 10.55   | 50.68    | 19.59     | 7.13          | 2.76       |
| West Virginia.....         | 36.51   | 5.53   | 7.64    | 6.62    | 44.95    | 10.79     | 2.07          | 4.70       |
| North Carolina.....        | 43.59   | 7.97   | 8.94    | 3.27    | 43.59    | 11.50     | 2.17          | 2.76       |
| South Carolina.....        | 45.26   | 7.87   | 21.14   | 5.30    | 57.06    | 21.49     | 2.72          | 5.06       |
| Georgia.....               | 50.85   | 6.52   | 10.45   | 1.73    | 57.14    | 23.65     | 7.73          | 3.89       |
| Florida.....               | 28.90   | 4.01   | 14.56   | 4.22    | 34.81    | 9.92      | .63           | 8.44       |
| South Central Division:    |   |        |         |         |          |           |               |            |
| Kentucky.....              | 33.15   | 5.48   | 8.17    | 10.23   | 39.87    | 14.24     | 6.21          | 4.39       |
| Tennessee.....             | 44.63   | 8.16   | 4.26    | 3.18    | 52.10    | 19.91     | 6.11          | 5.61       |
| Alabama.....               | 43.65   | 5.90   | 10.11   | 4.00    | 60.75    | 29.12     | 8.69          | 4.39       |
| Mississippi.....           | 31.78   | 3.86   | 3.31    | 1.57    | 46.63    | 19.38     | 6.94          | 4.61       |
| Louisiana.....             | 22.29   | 3.18   | 59.32   | 6.37    | 58.02    | 26.25     | 7.60          | 27.68      |
| Texas.....                 | 37.56   | 2.84   | 5.90    | 7.74    | 55.23    | 28.36     | 7.40          | 6.23       |
| Arkansas.....              | 39.57   | 3.67   | 4.14    | 6.18    | 51.46    | 14.98     | 4.08          | 6.29       |
| Oklahoma.....              | 88.14   | 20.34  | 3.39    | 11.86   | 49.15    | 20.34     | 16.95         | 25.42      |
| Indian Territory.....      | 41.85   | 3.26   | 1.63    | 4.89    | 50.00    | 37.50     | 15.22         | 6.52       |
| North Central Division:    |   |        |         |         |          |           |               |            |
| Ohio.....                  | 47.63   | 8.74   | 20.83   | 28.51   | 42.61    | 19.73     | 7.03          | 6.94       |
| Indiana.....               | 34.21   | 3.85   | 16.25   | 20.53   | 52.74    | 16.98     | 6.60          | 6.05       |
| Illinois.....              | 31.82   | 5.82   | 15.63   | 16.55   | 32.99    | 16.80     | 3.74          | 6.15       |
| Michigan.....              | 30.09   | 9.56   | 15.84   | 34.40   | 46.77    | 22.63     | 7.22          | 9.47       |
| Wisconsin.....             | 49.11   | 22.27  | 14.91   | 49.49   | 48.54    | 26.90     | 8.88          | 6.92       |
| Minnesota.....             | 33.90   | 5.37   | 10.81   | 23.16   | 43.50    | 19.07     | 1.13          | 7.91       |
| Iowa.....                  | 30.37   | 10.12  | 3.71    | 17.19   | 36.00    | 20.32     | 6.11          | 8.51       |
| Missouri.....              | 40.50   | 7.48   | 11.78   | 19.10   | 50.10    | 20.06     | 8.04          | 10.94      |
| North Dakota.....          | 10.00   | 2.10   | 5.26    | 2.10    | 30.00    | 5.79      | .53           | 1.58       |
| South Dakota.....          | 36.70   | 8.72   | 15.60   | 21.10   | 38.07    | 19.72     | 1.83          | .....      |
| Nebraska.....              | 40.79   | 6.14   | 3.96    | 12.82   | 37.52    | 20.87     | 3.55          | 3.55       |
| Kansas.....                | 45.95   | 14.32  | 8.09    | 14.03   | 35.52    | 16.10     | 5.26          | 6.88       |
| Western Division:          |   |        |         |         |          |           |               |            |
| Montana.....               | 28.23   | .81    | 20.97   | 7.26    | 42.74    | 8.87      | 4.84          | .81        |
| Wyoming.....               | 29.17   | 4.17   | .....   | .....   | 30.56    | 8.33      | .....         | .....      |
| Colorado.....              | 40.51   | 7.07   | 11.58   | 33.44   | 35.69    | 18.33     | 3.22          | 1.93       |
| New Mexico.....            | 31.62   | .85    | .85     | 3.42    | 49.57    | 12.82     | .85           | 6.84       |
| Arizona.....               | .....   | .....  | .....   | .....   | .....    | .....     | .....         | .....      |
| Utah.....                  | 16.19   | 2.13   | 2.54    | 6.09    | 19.27    | 8.51      | 1.83          | 2.66       |
| Nevada.....                | .....   | .....  | .....   | .....   | 100.00   | 100.00    | .....         | .....      |
| Idaho.....                 | 60.76   | 1.27   | .....   | 21.52   | 69.62    | 26.58     | 3.80          | .....      |
| Washington.....            | 27.20   | 9.34   | 17.99   | 11.54   | 34.75    | 12.50     | 3.85          | 4.67       |
| Oregon.....                | 47.47   | 11.62  | 15.99   | 22.73   | 42.76    | 19.19     | 4.55          | 9.93       |
| California.....            | 43.66   | 9.86   | 28.54   | 14.99   | 60.16    | 36.10     | 7.25          | 13.42      |

TABLE 19.—*Percentages for private secondary schools.*

PER CENT OF STUDENTS IN CERTAIN STUDIES—Continued.

| State or Territory.        | Per cent to total number of secondary students. |            |                     |          |             |             |           |
|----------------------------|---|------------|---------------------|----------|-------------|-------------|-----------|
|                            | Physics.  | Chemistry. | Physical geography. | Geology. | Physiology. | Psychology. | Rhetoric. |
| United States.....         | 20.32   | 9.79       | 18.15               | 7.08     | 22.34       | 5.13        | 29.12     |
| North Atlantic Division... | 19.86   | 11.15      | 15.79               | 7.15     | 19.25       | 4.88        | 28.35     |
| South Atlantic Division... | 17.53   | 8.91       | 20.66               | 4.29     | 21.62       | 2.90        | 29.58     |
| South Central Division...  | 23.37   | 7.79       | 18.00               | 8.37     | 24.53       | 5.93        | 30.21     |
| North Central Division...  | 20.12   | 10.29      | 21.22               | 8.05     | 25.77       | 6.43        | 28.17     |
| Western Division.....      | 20.29   | 10.39      | 15.68               | 6.99     | 24.43       | 6.41        | 31.59     |
| North Atlantic Division:   |   |            |                     |          |             |             |           |
| Maine.....                 | 14.75   | 10.63      | 13.49               | 5.57     | 10.63       | 4.66        | 20.59     |
| New Hampshire.....         | 15.02   | 12.37      | 8.40                | 4.53     | 10.08       | 5.24        | 22.25     |
| Vermont.....               | 15.35   | 7.83       | 18.91               | 7.83     | 17.05       | 3.65        | 20.65     |
| Massachusetts.....         | 18.49   | 10.21      | 9.98                | 5.33     | 17.41       | 4.43        | 27.04     |
| Rhode Island.....          | 18.32   | 9.32       | 12.27               | 15.37    | 18.17       | 7.14        | 47.20     |
| Connecticut.....           | 17.36   | 8.49       | 13.67               | 7.62     | 15.41       | 4.49        | 33.01     |
| New York.....              | 22.09   | 12.71      | 18.51               | 7.50     | 22.65       | 4.55        | 28.43     |
| New Jersey.....            | 26.23   | 16.11      | 16.11               | 13.92    | 18.24       | 3.87        | 38.74     |
| Pennsylvania.....          | 20.11   | 9.55       | 18.50               | 5.37     | 23.29       | 6.15        | 27.81     |
| South Atlantic Division:   |   |            |                     |          |             |             |           |
| Delaware.....              | 18.90   | 12.71      | 27.49               | .....    | 9.62        | 1.72        | 30.93     |
| Maryland.....              | 25.77   | 16.65      | 23.68               | 5.83     | 19.59       | 2.64        | 31.85     |
| District of Columbia...    | 41.16   | 17.03      | 30.97               | 7.35     | 16.52       | 3.61        | 48.39     |
| Virginia.....              | 18.69   | 9.43       | 18.06               | 4.10     | 17.19       | 2.81        | 29.62     |
| West Virginia.....         | 13.42   | 4.29       | 22.41               | 7.88     | 27.52       | 4.70        | 28.63     |
| North Carolina.....        | 13.63   | 5.07       | 19.79               | 3.48     | 22.27       | 2.33        | 23.85     |
| South Carolina.....        | 17.66   | 9.64       | 23.87               | 4.04     | 23.81       | 5.60        | 25.78     |
| Georgia.....               | 14.94   | 9.13       | 17.15               | 3.93     | 22.79       | 2.01        | 35.37     |
| Florida.....               | 17.93   | 9.07       | 37.97               | 6.75     | 41.56       | 6.75        | 22.78     |
| South Central Division:    |   |            |                     |          |             |             |           |
| Kentucky.....              | 11.93   | 5.50       | 13.23               | 5.26     | 21.30       | 4.41        | 27.79     |
| Tennessee.....             | 14.95   | 5.29       | 13.56               | 12.87    | 17.79       | 3.41        | 31.87     |
| Alabama.....               | 25.45   | 7.75       | 16.68               | 5.93     | 26.21       | 2.42        | 32.54     |
| Mississippi.....           | 37.46   | 7.05       | 15.93               | 6.44     | 30.44       | 6.21        | 25.28     |
| Louisiana.....             | 38.53   | 20.40      | 33.67               | 13.26    | 25.41       | 10.27       | 46.78     |
| Texas.....                 | 30.37   | 11.45      | 21.72               | 9.08     | 24.39       | 9.16        | 27.08     |
| Arkansas.....              | 18.24   | 2.62       | 27.80               | 2.39     | 44.11       | 11.25       | 29.25     |
| Oklahoma.....              | 16.95   | .....      | 30.51               | 25.42    | 30.51       | 47.46       | 35.59     |
| Indian Territory.....      | 52.72   | 14.13      | 17.93               | .....    | 24.46       | 2.72        | 45.11     |
| North Central Division:    |   |            |                     |          |             |             |           |
| Ohio.....                  | 20.30   | 10.95      | 23.94               | 7.56     | 25.69       | 5.76        | 29.21     |
| Indiana.....               | 15.94   | 9.35       | 23.09               | 7.82     | 22.05       | 6.23        | 28.10     |
| Illinois.....              | 15.94   | 7.68       | 21.84               | 4.86     | 19.22       | 4.35        | 21.73     |
| Michigan.....              | 20.90   | 14.53      | 17.71               | 13.40    | 28.68       | 8.72        | 32.80     |
| Wisconsin.....             | 26.78   | 15.99      | 28.36               | 8.95     | 28.49       | 1.52        | 43.15     |
| Minnesota.....             | 14.20   | 6.43       | 19.77               | 7.42     | 34.60       | 3.46        | 23.66     |
| Iowa.....                  | 18.70   | 9.37       | 14.40               | 9.66     | 19.40       | 7.20        | 26.23     |
| Missouri.....              | 25.95   | 12.44      | 24.20               | 10.15    | 33.74       | 10.83       | 31.07     |
| North Dakota.....          | 13.16   | 5.79       | 10.00               | 2.11     | 14.74       | 5.79        | 17.37     |
| South Dakota.....          | 19.72   | .....      | 27.52               | 3.67     | 53.67       | 4.59        | 19.72     |
| Nebraska.....              | 21.01   | 6.69       | 15.01               | 4.09     | 15.83       | 1.77        | 26.19     |
| Kansas.....                | 20.15   | 11.49      | 17.80               | 7.28     | 26.46       | 8.25        | 27.75     |
| Western Division:          |   |            |                     |          |             |             |           |
| Montana.....               | 20.97   | 12.10      | 12.10               | 8.87     | 29.84       | .....       | 40.32     |
| Wyoming.....               | .....   | 8.33       | 8.33                | .....    | 31.95       | .....       | 29.17     |
| Colorado.....              | 19.61   | 13.18      | 20.90               | 1.29     | 21.22       | .....       | 24.12     |
| New Mexico.....            | 39.32   | 23.08      | 26.50               | 11.11    | 64.96       | .....       | 31.62     |
| Arizona.....               | .....   | .....      | .....               | .....    | .....       | .....       | .....     |
| Utah.....                  | 7.57  | 5.85       | 7.51                | 4.02     | 9.46        | 11.17       | 16.49     |
| Nevada.....                | 14.29   | .....      | 100.00              | .....    | .....       | .....       | 50.00     |
| Idaho.....                 | 12.66   | .....      | 11.39               | .....    | 10.13       | 21.52       | 27.85     |
| Washington.....            | 15.80   | 9.62       | 11.13               | 10.16    | 27.34       | 4.67        | 28.43     |
| Oregon.....                | 18.01   | 7.58       | 15.15               | 3.03     | 25.93       | 3.37        | 28.62     |
| California.....            | 31.67   | 14.07      | 22.07               | 10.17    | 32.62       | 5.52        | 45.09     |



TABLE 20.—Summary of statistics of private secondary schools.  
EQUIPMENT, INCOME, AND BENEFCTIONS.

| State or Territory.          | Libraries.         |           | Grounds, build-<br>ings, scientific ap-<br>paratus, etc. |              | Endowment<br>funds. |              | State and<br>municipal<br>aid. |           | Tuition fees.      |             | Productive<br>funds. |             | Income from<br>other sources<br>unclassified. |           | Total income<br>from<br>all sources. |             | Benefac-<br>tions. |           |
|------------------------------|--------------------|-----------|--|--------------|---------------------|--------------|--------------------------------|-----------|--------------------|-------------|----------------------|-------------|---|-----------|--------------------------------------|-------------|--------------------|-----------|
|                              | Schools reporting. | Volumes.  | Schools reporting.                                       | Value.       | Schools reporting.  | Amount.      | Schools reporting.             | Amount.   | Schools reporting. | Amount.     | Schools reporting.   | Amount.     | Schools reporting.                            | Amount.   | Schools reporting.                   | Amount.     |                    |           |
| United States.....           | 1,361              | 1,498,427 | 1,545  | \$51,865,512 | 315                 | \$24,729,613 | 301                            | \$157,293 | 1,424              | \$6,002,380 | 338                  | \$1,864,054 | 395   | \$854,491 | 1,449                                | \$8,878,218 | 140                | \$495,760 |
| North Atlantic Division..... |                    |           |  |              |                     |              |                                |           |                    |             |                      |             |   |           |                                      |             |                    |           |
| Maine.....                   | 32                 | 33,855    | 29   | 605,360      | 27                  | 831,955      |                                | 11,370    | 30                 | 45,660      | 19                   | 24,008      | 10  | 4,417     | 31                                   | 85,455      | 3                  | 1,550     |
| New Hampshire.....           | 21                 | 37,375    | 21   | 728,825      | 11                  | 725,050      | 22                             | 900       | 16                 | 346,539     | 9                    | 54,246      | 6   | 10,228    | 17                                   | 411,913     | 2                  | 12,000    |
| Vermont.....                 | 20                 | 23,544    | 17   | 502,575      | 17                  | 486,058      | 5                              | 1,231     | 16                 | 42,418      | 13                   | 27,516      | 10  | 17,208    | 17                                   | 88,373      | 4                  | 33,200    |
| Massachusetts.....           | 67                 | 104,315   | 70   | 5,290,579    | 34                  | 3,210,802    | 4                              | 2,950     | 71                 | 580,972     | 29                   | 204,561     | 21  | 101,667   | 75                                   | 890,153     | 13                 | 114,478   |
| Rhode Island.....            | 6                  | 8,400     | 6  | 827,000      | 1                   | 30,000       | 0                              | 0         | 6                  | 73,872      | 1                    | 1,641       | 1   | 5         | 6                                    | 75,518      | 1                  | 1,964     |
| Connecticut.....             | 37                 | 35,715    | 32   | 995,200      | 9                   | 1,171,500    | 3                              | 2,707     | 30                 | 132,880     | 11                   | 44,527      | 8   | 9,510     | 31                                   | 189,597     | 1                  | 1,200     |
| New York.....                | 150                | 259,853   | 125  | 9,127,656    | 36                  | 967,597      | 42                             | 14,817    | 120                | 1,064,970   | 33                   | 76,166      | 45  | 101,285   | 122                                  | 1,257,238   | 18                 | 26,840    |
| New Jersey.....              | 44                 | 41,310    | 41   | 1,933,101    | 8                   | 473,250      | 2                              | 1,700     | 36                 | 203,857     | 7                    | 22,615      | 5   | 6,209     | 37                                   | 324,361     | 1                  | 500       |
| Pennsylvania.....            | 72                 | 149,784   | 68   | 7,796,440    | 22                  | 12,415,813   | 0                              | 0         | 85                 | 528,257     | 20                   | 1,070,443   | 26  | 55,570    | 86                                   | 1,654,270   | 8                  | 27,345    |
| South Atlantic Division..... |                    |           |  |              |                     |              |                                |           |                    |             |                      |             |   |           |                                      |             |                    |           |
| Delaware.....                | 2                  | 1,700     | 2  | 125,000      |                     |              | 0                              | 0         | 3                  | 21,609      | 1                    | 1,000       | 1   | 960       | 3                                    | 23,569      | 0                  | 0         |
| Maryland.....                | 26                 | 38,827    | 25   | 1,221,946    | 3                   | 1,863,985    | 4                              | 4,876     | 23                 | 108,115     | 5                    | 113,671     | 5   | 4,591     | 25                                   | 231,253     | 0                  | 0         |
| District of Columbia.....    | 9                  | 16,200    | 6  | 313,200      |                     |              | 0                              | 0         | 6                  | 24,361      | 2                    | 1,878       | 3   | 4,600     | 6                                    | 30,839      | 1                  | 300       |
| Virginia.....                | 41                 | 29,406    | 71   | 846,575      | 3                   | 35,000       | 0                              | 1,613     | 62                 | 132,432     | 4                    | 1,517       | 7   | 19,678    | 64                                   | 155,240     | 1                  | 150       |
| West Virginia.....           | 6                  | 5,900     | 10   | 150,300      | 1                   | 9,000        | 0                              | 0         | 10                 | 16,638      | 3                    | 3,072       | 2   | 1,400     | 10                                   | 21,100      | 2                  | 8,500     |
| North Carolina.....          | 59                 | 28,809    | 117  | 852,315      | 8                   | 41,150       | 16                             | 2,263     | 97                 | 138,527     | 11                   | 7,647       | 22  | 26,932    | 98                                   | 175,369     | 8                  | 54,710    |
| South Carolina.....          | 24                 | 15,937    | 32   | 302,150      | 3                   | 22,800       | 11                             | 6,295     | 31                 | 55,816      | 4                    | 3,381       | 5   | 7,180     | 31                                   | 72,672      | 1                  | 1,000     |
| Georgia.....                 | 38                 | 27,836    | 77   | 1,356,455    | 9                   | 206,150      | 50                             | 28,911    | 69                 | 125,190     | 16                   | 18,059      | 13  | 42,004    | 75                                   | 214,164     | 8                  | 8,540     |
| Florida.....                 | 5                  | 6,175     | 5  | 74,500       | 1                   | 900          | 0                              | 0         | 4                  | 6,874       | 3                    | 3,882       | 0   | 0         | 5                                    | 10,756      | 2                  | 682       |
| South Central Division.....  |                    |           |  |              |                     |              |                                |           |                    |             |                      |             |   |           |                                      |             |                    |           |
| Kentucky.....                | 49                 | 40,843    | 65   | 1,112,045    | 8                   | 61,400       | 6                              | 3,262     | 65                 | 196,912     | 14                   | 12,570      | 11  | 74,026    | 50                                   | 286,770     | 2                  | 2,000     |
| Tennessee.....               | 75                 | 44,413    | 114  | 1,281,700    | 9                   | 61,550       | 38                             | 12,983    | 96                 | 193,820     | 12                   | 13,733      | 17  | 8,662     | 97                                   | 229,198     | 2                  | 500       |
| Alabama.....                 | 26                 | 17,287    | 58   | 519,830      | 5                   | 156,600      | 28                             | 5,989     | 58                 | 75,229      | 6                    | 2,355       | 8   | 1,898     | 60                                   | 85,481      | 1                  | 50        |
| Mississippi.....             | 26                 | 26,943    | 66   | 523,900      | 5                   | 87,200       | 33                             | 16,936    | 61                 | 75,100      | 12                   | 17,801      | 13  | 5,461     | 62                                   | 115,298     | 3                  | 4,855     |



TABLE 20.—Summary of statistics of private secondary schools—Continued.  
EQUIPMENT, INCOME, AND BENEFACCTIONS—Continued.

| State or Territory.            | Libraries.         |          | Grounds, build-<br>ings, scientific ap-<br>paratus, etc. |           | Endowment<br>funds. |          | State and<br>municipal<br>aid. |         | Tuition fees.      |          | Productive<br>funds. |         | Income from<br>other sources<br>and<br>unclassified. |         | Total income<br>from<br>all sources. |          | Benefac-<br>tions. |          |
|--------------------------------|--------------------|----------|--|-----------|---------------------|----------|--------------------------------|---------|--------------------|----------|----------------------|---------|--|---------|--------------------------------------|----------|--------------------|----------|
|                                | Schools reporting. | Volumes. | Schools reporting.                                       | Value.    | Schools reporting.  | Amount.  | Schools reporting.             | Amount. | Schools reporting. | Amount.  | Schools reporting.   | Amount. | Schools reporting.                                   | Amount. | Schools reporting.                   | Amount.  | Schools reporting. | Amount.  |
| <b>South Central Division—</b> |                    |          |  |           |                     |          |                                |         |                    |          |                      |         |  |         |                                      |          |                    |          |
| Continued.                     |                    |          |  |           |                     |          |                                |         |                    |          |                      |         |  |         |                                      |          |                    |          |
| Louisiana .....                | 18                 | 19,050   | 23   | \$322,500 | 1                   | \$40,000 | 1                              | \$500   | 16                 | \$61,925 | 5                    | \$4,922 | 2  | \$4,600 | 16                                   | \$71,947 | 0                  | 0        |
| Texas .....                    | 54                 | 38,141   | 68   | 1,853,690 | 3                   | 49,000   | 17                             | 16,238  | 57                 | 148,181  | 3                    | 4,245   | 7  | 20,391  | 60                                   | 180,055  | 6                  | \$15,469 |
| Arkansas .....                 | 22                 | 7,875    | 33   | 257,100   | 2                   | 1,150    | 7                              | 3,804   | 30                 | 45,621   | 6                    | 3,225   | 5  | 2,957   | 31                                   | 55,107   | 0                  | 0        |
| Oklahoma .....                 | 2                  | 600      | 2  | 43,000    |                     |          |                                | 0       | 1                  | 1,000    |                      |         | 1  | 1,800   | 1                                    | 21,800   | 0                  | 0        |
| Indian Territory .....         | 6                  | 1,587    | 6  | 128,750   | 1                   | 1,000    | 0                              | 0       | 4                  | 9,700    |                      |         | 2  | 5,100   | 4                                    | 14,800   | 1                  | 60       |
| <b>North Central Division:</b> |                    |          |  |           |                     |          |                                |         |                    |          |                      |         |  |         |                                      |          |                    |          |
| Ohio .....                     | 41                 | 60,485   | 32   | 972,075   | 9                   | 90,500   | 0                              | 245     | 28                 | 145,056  | 9                    | 13,238  | 8  | 14,396  | 28                                   | 172,935  | 3                  | 32,755   |
| Indiana .....                  | 20                 | 38,731   | 14   | 346,425   | 9                   | 115,000  | 3                              | 16,400  | 15                 | 53,853   | 9                    | 10,300  | 4  | 10,235  | 16                                   | 92,790   | 3                  | 6,100    |
| Illinois .....                 | 44                 | 69,403   | 39   | 1,870,090 | 15                  | 296,500  | 0                              | 1,800   | 36                 | 285,636  | 12                   | 17,642  | 12   | 45,059  | 37                                   | 349,137  | 6                  | 33,540   |
| Michigan .....                 | 15                 | 18,903   | 12   | 746,762   | 5                   | 47,400   | 0                              | 0       | 9                  | 53,979   | 7                    | 13,154  | 6  | 32,894  | 11                                   | 100,027  | 2                  | 1,817    |
| Wisconsin .....                | 22                 | 40,750   | 19   | 1,033,000 | 4                   | 100,500  | 0                              | 0       | 21                 | 162,033  | 5                    | 8,095   | 9  | 18,700  | 21                                   | 188,828  | 3                  | 17,100   |
| Minnesota .....                | 24                 | 17,070   | 24   | 1,097,673 | 6                   | 426,000  | 0                              | 0       | 18                 | 126,663  | 5                    | 4,889   | 8  | 24,133  | 19                                   | 155,685  | 2                  | 4,498    |
| Iowa .....                     | 26                 | 24,472   | 30   | 568,300   | 8                   | 101,100  | 0                              | 0       | 27                 | 60,809   | 8                    | 6,792   | 13   | 14,617  | 28                                   | 82,218   | 6                  | 13,110   |
| Missouri .....                 | 70                 | 48,247   | 63   | 1,635,400 | 7                   | 112,460  | 0                              | 0       | 53                 | 100,965  | 5                    | 6,680   | 22   | 37,189  | 53                                   | 204,834  | 3                  | 2,701    |
| North Dakota .....             | 4                  | 845      | 4  | 43,500    |                     |          | 0                              | 0       | 4                  | 5,302    | 2                    | 1,152   | 2  | 1,580   | 4                                    | 8,034    | 1                  | 2,000    |
| South Dakota .....             | 5                  | 3,400    | 7  | 139,000   | 2                   | 25,000   | 0                              | 0       | 6                  | 13,368   | 0                    | 0       | 5  | 8,125   | 6                                    | 21,483   | 4                  | 17,651   |
| Nebraska .....                 | 14                 | 15,156   | 11   | 430,600   | 3                   | 39,780   | 0                              | 0       | 9                  | 13,431   | 6                    | 3,449   | 6  | 14,951  | 9                                    | 31,831   | 3                  | 3,986    |
| Kansas .....                   | 20                 | 16,800   | 20   | 728,935   | 5                   | 136,325  | 0                              | 0       | 21                 | 70,531   | 4                    | 15,351  | 9  | 11,885  | 21                                   | 97,765   | 3                  | 3,087    |
| <b>Western Division:</b>       |                    |          |  |           |                     |          |                                |         |                    |          |                      |         |  |         |                                      |          |                    |          |
| Montana .....                  | 3                  | 700      | 3  | 56,500    |                     |          | 0                              | 0       | 2                  | 6,500    | 0                    | 0       | 1  | 500     | 2                                    | 7,000    | 0                  | 0        |
| Wyoming .....                  | 1                  | 100      | 1  | 11,600    |                     |          | 0                              | 0       | 1                  | 250      |                      |         | 1  | 1,400   | 1                                    | 1,650    | 0                  | 0        |
| Colorado .....                 | 6                  | 4,450    | 5  | 485,000   | 2                   | 100,500  | 0                              | 0       | 5                  | 24,050   | 1                    | 38      | 2  | 5,500   | 5                                    | 29,588   | 4                  | 14,250   |
| New Mexico .....               | 4                  | 2,350    | 6  | 73,000    |                     |          | 0                              | 0       | 5                  | 8,100    | 2                    | 3,454   | 1  | 850     | 5                                    | 12,404   | 1                  | 3,251    |
| Arizona .....                  |                    |          |  |           |                     |          |                                |         |                    |          |                      |         |  |         |                                      |          |                    |          |
| Utah .....                     | 16                 | 11,910   | 12   | 378,000   | 4                   | 99,000   | 1                              | 1,000   | 12                 | 29,672   | 3                    | 4,700   | 9  | 45,286  | 12                                   | 80,658   | 0                  | 0        |
| Nevada .....                   | 1                  | 200      |  |           |                     |          | 0                              | 0       |                    |          |                      |         |  |         |                                      |          |                    |          |
| Idaho .....                    | 1                  | 1,000    | 1  | 3,000     | 1                   | 2,000    | 0                              | 0       | 1                  | 800      | 0                    | 0       | 1  | 500     | 1                                    | 1,300    | 0                  | 0        |
| Washington .....               | 10                 | 9,715    | 9  | 233,000   | 3                   | 62,000   | 0                              | 0       | 8                  | 23,150   | 4                    | 3,700   | 4  | 2,900   | 9                                    | 29,750   | 2                  | 17,400   |
| Oregon .....                   | 11                 | 12,610   | 10   | 286,300   | 4                   | 17,638   | 0                              | 0       | 8                  | 15,445   | 1                    | 180     | 4  | 2,850   | 8                                    | 18,475   | 2                  | 7,356    |
| California .....               | 39                 | 41,650   | 34   | 2,139,350 | 1                   | 9,000    | 0                              | 0       | 32                 | 194,360  | 6                    | 12,556  | 12   | 22,604  | 33                                   | 229,520  | 3                  | 1,255    |

TABLE 21.—*Denominational schools included in the tables of private schools and academics.*

| State or Territory.       | Nonsectarian. |              |           | Baptist. |              |           | Congrega-<br>tional. |              |           | Episcopal. |              |           | Friends. |              |           | Lutheran. |              |           |
|---------------------------|---------------|--------------|-----------|----------|--------------|-----------|----------------------|--------------|-----------|------------|--------------|-----------|----------|--------------|-----------|-----------|--------------|-----------|
|                           | Schools.      | Instructors. | Students. | Schools. | Instructors. | Students. | Schools.             | Instructors. | Students. | Schools.   | Instructors. | Students. | Schools. | Instructors. | Students. | Schools.  | Instructors. | Students. |
| United States.....        | 1, 270        | 4, 628       | 65, 906   | 109      | 434          | 7, 424    | 56                   | 222          | 2, 882    | 119        | 642          | 5, 552    | 57       | 284          | 3, 851    | 36        | 135          | 1, 908    |
| North Atlantic Division.. | 447           | 2, 187       | 25, 447   | 24       | 173          | 2, 066    | 12                   | 52           | 580       | 50         | 334          | 2, 645    | 25       | 182          | 2, 275    | 6         | 29           | 287       |
| South Atlantic Division.. | 289           | 819          | 12, 935   | 42       | 109          | 2, 001    | 8                    | 23           | 389       | 17         | 52           | 616       | 6        | 29           | 246       | 7         | 20           | 240       |
| South Central Division... | 356           | 894          | 18, 532   | 28       | 75           | 1, 207    | 9                    | 32           | 453       | 11         | 41           | 400       | 2        | 4            | 60        | 1         | 2            | 35        |
| North Central Division... | 140           | 593          | 7, 654    | 13       | 73           | 1, 191    | 16                   | 67           | 916       | 27         | 142          | 1, 304    | 24       | 68           | 1, 270    | 22        | 84           | 1, 346    |
| Western Division.....     | 38            | 135          | 1, 338    | 2        | 4            | 59        | 11                   | 48           | 544       | 14         | 73           | 587       |          |              |           |           |              |           |
| North Atlantic Division:  |               |              |           |          |              |           |                      |              |           |            |              |           |          |              |           |           |              |           |
| Maine.....                | 25            | 90           | 1, 602    | 6        | 43           | 954       | 2                    | 9            | 79        | 1          | 3            | 23        | 1        | 8            | 98        |           |              |           |
| New Hampshire.....        | 16            | 62           | 1, 063    | 2        | 12           | 234       | 3                    | 12           | 241       | 3          | 45           | 401       |          |              |           |           |              |           |
| Vermont.....              | 13            | 59           | 1, 171    | 3        | 20           | 283       | 1                    | 2            | 25        | 2          | 7            | 47        |          |              |           |           |              |           |
| Massachusetts.....        | 80            | 482          | 4, 950    | 1        | 4            | 20        | 4                    | 22           | 202       | 4          | 38           | 334       |          |              |           |           |              |           |
| Rhode Island.....         | 7             | 35           | 267       |          |              |           |                      |              |           |            |              |           |          |              |           |           |              |           |
| Connecticut.....          | 49            | 197          | 2, 198    | 1        | 10           | 165       | 1                    | 2            | 18        | 10         | 55           | 401       |          |              |           |           |              |           |
| New York.....             | 132           | 711          | 6, 941    | 4        | 29           | 405       | 1                    | 5            | 15        | 17         | 115          | 852       | 4        | 24           | 226       | 3         | 16           | 139       |
| New Jersey.....           | 44            | 244          | 2, 494    | 2        | 17           | 288       |                      |              |           | 5          | 19           | 153       | 5        | 8            | 87        |           |              |           |
| Pennsylvania.....         | 81            | 307          | 4, 761    | 5        | 38           | 617       |                      |              |           | 8          | 52           | 434       | 15       | 143          | 1, 864    | 3         | 13           | 148       |
| South Atlantic Division:  |               |              |           |          |              |           |                      |              |           |            |              |           |          |              |           |           |              |           |
| Delaware.....             | 2             | 7            | 63        |          |              |           |                      |              |           |            |              |           | 1        | 8            | 88        |           |              |           |
| Maryland.....             | 26            | 118          | 1, 052    |          |              |           |                      |              |           | 6          | 24           | 156       | 3        | 19           | 130       | 1         | 2            | 22        |
| District of Columbia..    | 7             | 42           | 350       | 1        | 2            | 12        |                      |              |           |            |              |           |          |              |           |           |              |           |
| Virginia.....             | 65            | 178          | 2, 567    | 9        | 21           | 309       |                      |              |           | 3          | 10           | 72        |          |              |           | 2         | 6            | 72        |
| West Virginia.....        | 6             | 11           | 242       | 2        | 6            | 104       |                      |              |           |            |              |           |          |              |           |           |              |           |
| North Carolina.....       | 94            | 223          | 4, 203    | 12       | 28           | 582       | 4                    | 11           | 144       | 6          | 11           | 284       | 2        | 2            | 28        | 3         | 9            | 134       |
| South Carolina.....       | 22            | 57           | 890       | 5        | 17           | 299       | 1                    | 4            | 157       | 1          | 6            | 97        |          |              |           | 1         | 3            | 12        |
| Georgia.....              | 65            | 178          | 3, 435    | 12       | 31           | 675       | 3                    | 8            | 88        |            |              |           |          |              |           |           |              |           |
| Florida.....              | 2             | 5            | 133       | 1        | 4            | 20        |                      |              |           | 1          | 1            | 7         |          |              |           |           |              |           |
| South Central Division:   |               |              |           |          |              |           |                      |              |           |            |              |           |          |              |           |           |              |           |
| Kentucky.....             | 48            | 147          | 3, 369    | 6        | 16           | 262       | 1                    | 2            | 22        | 4          | 8            | 60        |          |              |           |           |              |           |
| Tennessee.....            | 93            | 211          | 4, 421    | 2        | 4            | 94        | 1                    | 7            | 114       | 2          | 8            | 75        | 2        | 4            | 60        |           |              |           |
| Alabama.....              | 64            | 140          | 2, 781    | 6        | 10           | 173       | 2                    | 5            | 91        | 1          | 6            | 60        |          |              |           | 1         | 2            | 35        |
| Mississippi.....          | 56            | 126          | 2, 535    | 5        | 9            | 173       |                      |              |           | 1          | 6            | 56        |          |              |           |           |              |           |
| Louisiana.....            | 18            | 48           | 901       | 1        | 2            | 104       |                      |              |           | 1          | 6            | 53        |          |              |           |           |              |           |
| Texas.....                | 49            | 141          | 3, 186    | 6        | 30           | 372       | 1                    | 7            | 40        | 1          | 6            | 78        |          |              |           |           |              |           |
| Arkansas.....             | 27            | 68           | 1, 279    | 1        | 2            | 22        | 1                    | 4            | 112       | 1          | 1            | 18        |          |              |           |           |              |           |
| Oklahoma.....             |               |              |           |          |              |           | 1                    | 4            | 41        |            |              |           |          |              |           |           |              |           |
| Indian Territory.....     | 1             | 3            | 60        | 1        | 2            | 7         | 1                    | 3            | 33        |            |              |           |          |              |           |           |              |           |
| North Central Division:   |               |              |           |          |              |           |                      |              |           |            |              |           |          |              |           |           |              |           |
| Ohio.....                 | 30            | 131          | 1, 120    |          |              |           |                      |              |           | 3          | 22           | 167       | 2        | 4            | 99        | 1         | 3            | 15        |
| Indiana.....              | 5             | 31           | 476       | 1        | 6            | 40        |                      |              |           | 2          | 6            | 54        | 6        | 19           | 468       |           |              |           |
| Illinois.....             | 17            | 86           | 1, 114    | 2        | 14           | 347       | 3                    | 11           | 100       | 4          | 17           | 168       | 1        | 2            | 39        | 1         | 3            | 90        |
| Michigan.....             | 7             | 40           | 853       |          |              |           |                      |              |           | 1          | 5            | 29        | 1        | 3            | 35        | 1         | 5            | 24        |
| Wisconsin.....            | 8             | 31           | 296       | 1        | 10           | 129       | 1                    | 3            | 47        | 5          | 22           | 241       |          |              |           | 3         | 14           | 271       |
| Minnesota.....            | 7             | 29           | 240       | 1        | 12           | 163       | 1                    | 2            | 61        | 4          | 31           | 312       |          |              |           | 6         | 23           | 276       |
| Iowa.....                 | 12            | 52           | 1, 279    | 1        | 8            | 167       | 3                    | 11           | 173       | 1          | 3            | 13        | 8        | 26           | 408       | 3         | 9            | 250       |
| Missouri.....             | 46            | 164          | 2, 160    | 4        | 12           | 189       | 2                    | 9            | 173       | 2          | 8            | 46        |          |              |           | 3         | 13           | 223       |
| North Dakota.....         |               |              |           |          |              |           |                      |              |           |            |              |           |          |              |           | 2         | 4            | 110       |
| South Dakota.....         | 1             | 2            | 30        | 1        | 3            | 30        | 1                    | 5            | 52        | 1          | 5            | 27        |          |              |           | 1         | 3            | 32        |
| Nebraska.....             | 1             | 4            | 38        | 1        | 4            | 69        | 2                    | 9            | 136       | 3          | 15           | 200       |          |              |           | 1         | 7            | 55        |
| Kansas.....               | 6             | 23           | 318       | 1        | 4            | 57        | 3                    | 17           | 174       | 1          | 8            | 47        | 6        | 14           | 221       |           |              |           |
| Western Division:         |               |              |           |          |              |           |                      |              |           |            |              |           |          |              |           |           |              |           |
| Montana.....              | 1             | 3            | 39        |          |              |           |                      |              |           |            |              |           |          |              |           |           |              |           |
| Wyoming.....              |               |              |           |          |              |           | 1                    | 3            | 56        |            |              |           |          |              |           |           |              |           |
| Colorado.....             |               |              |           |          |              |           | 1                    | 5            | 95        | 2          | 8            | 104       |          |              |           |           |              |           |
| New Mexico.....           | 1             | 2            | 10        |          |              |           | 2                    | 6            | 54        |            |              |           |          |              |           |           |              |           |
| Arizona.....              |               |              |           |          |              |           |                      |              |           |            |              |           |          |              |           |           |              |           |
| Utah.....                 | 1             | 4            | 25        |          |              |           | 3                    | 10           | 91        | 1          | 7            | 87        |          |              |           |           |              |           |
| Nevada.....               |               |              |           |          |              |           |                      |              |           |            |              |           |          |              |           |           |              |           |
| Idaho.....                |               |              |           |          |              |           |                      |              |           | 1          | 1            | 27        |          |              |           |           |              |           |
| Washington.....           | 1             | 2            | 12        | 1        | 2            | 45        | 2                    | 6            | 81        | 2          | 9            | 60        |          |              |           |           |              |           |
| Oregon.....               | 3             | 11           | 203       |          |              |           | 1                    | 9            | 106       | 2          | 13           | 97        |          |              |           |           |              |           |
| California.....           | 31            | 113          | 1, 049    | 1        | 2            | 14        | 1                    | 9            | 61        | 6          | 35           | 212       |          |              |           |           |              |           |

TABLE 22.—*Denominational schools, number of teachers and students—Continued.*

| State or Territory.        | Methodist. |              |           | M. E. South. |              |           | Presbyterian. |              |           | Roman Catholic. |              |           | Other denominations. |              |           |
|----------------------------|------------|--------------|-----------|--------------|--------------|-----------|---------------|--------------|-----------|-----------------|--------------|-----------|----------------------|--------------|-----------|
|                            | Schools.   | Instructors. | Students. | Schools.     | Instructors. | Students. | Schools.      | Instructors. | Students. | Schools.        | Instructors. | Students. | Schools.             | Instructors. | Students. |
| United States .....        | 60         | 333          | 5,958     | 51           | 187          | 3,871     | 102           | 328          | 4,654     | 280             | 1,172        | 12,777    | 40                   | 194          | 3,564     |
| North Atlantic Division .. | 18         | 172          | 3,090     | ...          | ...          | ...       | 15            | 55           | 892       | 64              | 277          | 3,179     | 12                   | 76           | 1,137     |
| South Atlantic Division .. | 18         | 49           | 855       | 12           | 57           | 879       | 29            | 78           | 1,034     | 32              | 161          | 1,431     | 7                    | 16           | 344       |
| South Central Division ..  | 11         | 45           | 710       | 32           | 100          | 2,534     | 27            | 87           | 1,140     | 45              | 180          | 1,805     | 2                    | 12           | 196       |
| North Central Division ..  | 11         | 62           | 1,242     | 7            | 30           | 458       | 21            | 78           | 1,167     | 93              | 413          | 4,717     | 11                   | 31           | 509       |
| Western Division .....     | 2          | 5            | 61        | ...          | ...          | ...       | 10            | 30           | 421       | 46              | 141          | 1,645     | 8                    | 59           | 1,378     |
| North Atlantic Division:   |            |              |           |              |              |           |               |              |           |                 |              |           |                      |              |           |
| Maine .....                | 2          | 16           | 493       | ...          | ...          | ...       | ...           | ...          | ...       | 2               | 4            | 73        | ...                  | ...          | ...       |
| New Hampshire .....        | ...        | ...          | ...       | ...          | ...          | ...       | ...           | ...          | ...       | ...             | ...          | ...       | 1                    | 4            | 25        |
| Vermont .....              | 2          | 19           | 402       | ...          | ...          | ...       | ...           | ...          | ...       | 3               | 10           | 181       | 1                    | 10           | 138       |
| Massachusetts .....        | 1          | 15           | 262       | ...          | ...          | ...       | ...           | ...          | ...       | 3               | 16           | 114       | 2                    | 13           | 258       |
| Rhode Island .....         | 1          | 10           | 97        | ...          | ...          | ...       | ...           | ...          | ...       | 4               | 19           | 280       | ...                  | ...          | ...       |
| Connecticut .....          | ...        | ...          | ...       | ...          | ...          | ...       | ...           | ...          | ...       | 3               | 12           | 93        | ...                  | ...          | ...       |
| New York .....             | 1          | 13           | 158       | ...          | ...          | ...       | 2             | 5            | 42        | 33              | 144          | 1,558     | 1                    | 14           | 119       |
| New Jersey .....           | 2          | 21           | 278       | ...          | ...          | ...       | 5             | 12           | 256       | 5               | 23           | 370       | 1                    | 8            | 103       |
| Pennsylvania .....         | 1          | 2            | 10        | ...          | ...          | ...       | 8             | 38           | 594       | 11              | 49           | 510       | 6                    | 27           | 494       |
| South Atlantic Division:   |            |              |           |              |              |           |               |              |           |                 |              |           |                      |              |           |
| Delaware .....             | ...        | ...          | ...       | 1            | 7            | 90        | 1             | 2            | 50        | ...             | ...          | ...       | ...                  | ...          | ...       |
| Maryland .....             | ...        | ...          | ...       | 1            | 10           | 194       | ...           | ...          | ...       | 8               | 43           | 452       | ...                  | ...          | ...       |
| District of Columbia ..    | ...        | ...          | ...       | ...          | ...          | ...       | ...           | ...          | ...       | 7               | 50           | 413       | ...                  | ...          | ...       |
| Virginia .....             | 2          | 9            | 104       | 1            | 2            | 70        | 9             | 27           | 413       | 1               | 4            | 12        | 1                    | 3            | 41        |
| West Virginia .....        | ...        | ...          | ...       | 1            | 7            | 175       | 4             | 9            | 114       | 1               | 3            | 17        | 1                    | 4            | 71        |
| North Carolina .....       | 7          | 20           | 425       | 3            | 19           | 97        | 5             | 13           | 130       | 2               | 12           | 80        | 4                    | 7            | 165       |
| South Carolina .....       | 4          | 8            | 127       | 1            | 4            | 65        | 8             | 17           | 235       | 2               | 7            | 100       | ...                  | ...          | ...       |
| Georgia .....              | 3          | 6            | 96        | 4            | 8            | 188       | 2             | 10           | 92        | 5               | 19           | 146       | 1                    | 2            | 67        |
| Florida .....              | 2          | 6            | 103       | ...          | ...          | ...       | ...           | ...          | ...       | 6               | 23           | 211       | ...                  | ...          | ...       |
| South Central Division:    |            |              |           |              |              |           |               |              |           |                 |              |           |                      |              |           |
| Kentucky .....             | ...        | ...          | ...       | 4            | 12           | 182       | 8             | 33           | 353       | 14              | 59           | 612       | 1                    | 2            | 84        |
| Tennessee .....            | 4          | 23           | 212       | 15           | 58           | 1,296     | 5             | 11           | 138       | 3               | 8            | 73        | 2                    | 10           | 112       |
| Alabama .....              | 1          | 2            | 32        | ...          | ...          | ...       | 2             | 6            | 81        | 2               | 10           | 51        | ...                  | ...          | ...       |
| Mississippi .....          | 3          | 12           | 196       | 2            | 6            | 190       | 5             | 17           | 226       | 2               | 5            | 70        | ...                  | ...          | ...       |
| Louisiana .....            | ...        | ...          | ...       | 2            | 3            | 69        | ...           | ...          | ...       | 12              | 50           | 412       | ...                  | ...          | ...       |
| Texas .....                | 2          | 6            | 206       | 4            | 18           | 550       | 5             | 17           | 323       | 9               | 38           | 530       | ...                  | ...          | ...       |
| Arkansas .....             | 1          | 2            | 64        | 3            | 7            | 171       | 1             | 1            | 11        | 2               | 7            | 39        | ...                  | ...          | ...       |
| Oklahoma .....             | ...        | ...          | ...       | ...          | ...          | ...       | ...           | ...          | ...       | 1               | 3            | 18        | ...                  | ...          | ...       |
| Indian Territory .....     | ...        | ...          | ...       | 2            | 6            | 76        | 1             | 2            | 8         | ...             | ...          | ...       | ...                  | ...          | ...       |
| North Central Division:    |            |              |           |              |              |           |               |              |           |                 |              |           |                      |              |           |
| Ohio .....                 | 1          | 6            | 74        | ...          | ...          | ...       | 5             | 12           | 211       | 12              | 62           | 666       | 2                    | 7            | 96        |
| Indiana .....              | ...        | ...          | ...       | ...          | ...          | ...       | 1             | 4            | 35        | 10              | 41           | 564       | ...                  | ...          | ...       |
| Illinois .....             | 5          | 35           | 834       | ...          | ...          | ...       | 2             | 14           | 61        | 17              | 99           | 1,101     | 3                    | 10           | 80        |
| Michigan .....             | 1          | 3            | 44        | ...          | ...          | ...       | 1             | 1            | 11        | 7               | 28           | 341       | ...                  | ...          | ...       |
| Wisconsin .....            | 1          | 3            | 32        | ...          | ...          | ...       | 2             | 5            | 129       | 7               | 41           | 431       | ...                  | ...          | ...       |
| Minnesota .....            | ...        | ...          | ...       | ...          | ...          | ...       | ...           | ...          | ...       | 9               | 42           | 364       | ...                  | ...          | ...       |
| Iowa .....                 | 1          | 9            | 173       | ...          | ...          | ...       | 1             | 9            | 153       | 8               | 23           | 330       | 2                    | 7            | 96        |
| Missouri .....             | 1          | 3            | 57        | 7            | 30           | 458       | 5             | 15           | 282       | 11              | 39           | 452       | 4                    | 7            | 237       |
| North Dakota .....         | ...        | ...          | ...       | ...          | ...          | ...       | ...           | ...          | ...       | 2               | 6            | 80        | ...                  | ...          | ...       |
| South Dakota .....         | ...        | ...          | ...       | ...          | ...          | ...       | 1             | 2            | 27        | 1               | 3            | 20        | ...                  | ...          | ...       |
| Nebraska .....             | ...        | ...          | ...       | ...          | ...          | ...       | 2             | 9            | 145       | 4               | 14           | 90        | ...                  | ...          | ...       |
| Kansas .....               | 1          | 3            | 28        | ...          | ...          | ...       | 1             | 7            | 113       | 5               | 15           | 278       | ...                  | ...          | ...       |
| Western Division:          |            |              |           |              |              |           |               |              |           |                 |              |           |                      |              |           |
| Montana .....              | ...        | ...          | ...       | ...          | ...          | ...       | ...           | ...          | ...       | 3               | 5            | 85        | ...                  | ...          | ...       |
| Wyoming .....              | ...        | ...          | ...       | ...          | ...          | ...       | ...           | ...          | ...       | 1               | 3            | 16        | ...                  | ...          | ...       |
| Colorado .....             | ...        | ...          | ...       | ...          | ...          | ...       | 1             | 3            | 58        | 2               | 4            | 54        | ...                  | ...          | ...       |
| New Mexico .....           | ...        | ...          | ...       | ...          | ...          | ...       | ...           | ...          | ...       | 3               | 5            | 53        | ...                  | ...          | ...       |
| Arizona .....              | ...        | ...          | ...       | ...          | ...          | ...       | ...           | ...          | ...       | ...             | ...          | ...       | ...                  | ...          | ...       |
| Utah .....                 | ...        | ...          | ...       | ...          | ...          | ...       | 5             | 8            | 135       | 2               | 5            | 135       | 5                    | 37           | 1,219     |
| Nevada .....               | ...        | ...          | ...       | ...          | ...          | ...       | ...           | ...          | ...       | 1               | 1            | 14        | ...                  | ...          | ...       |
| Idaho .....                | ...        | ...          | ...       | ...          | ...          | ...       | 1             | 3            | 52        | ...             | ...          | ...       | ...                  | ...          | ...       |
| Washington .....           | ...        | ...          | ...       | ...          | ...          | ...       | 2             | 7            | 106       | 5               | 30           | 424       | ...                  | ...          | ...       |
| Oregon .....               | 1          | 3            | 28        | ...          | ...          | ...       | ...           | ...          | ...       | 6               | 15           | 130       | 1                    | 4            | 120       |
| California .....           | 1          | 2            | 33        | ...          | ...          | ...       | 1             | 9            | 70        | 23              | 73           | 734       | 2                    | 18           | 29        |

TABLE 23.—Averages for public and private high schools.

## TEACHERS AND STUDENTS.

| State or Territory.         | Public high schools.     |                                 |                                  |                                |                           | Private secondary schools. |                                 |                                  |                                |                           |
|-----------------------------|--------------------------|---------------------------------|----------------------------------|--------------------------------|---------------------------|----------------------------|---------------------------------|----------------------------------|--------------------------------|---------------------------|
|                             | Teachers to each school. | Secondary students to a school. | Secondary students to a teacher. | Elementary pupils to a school. | Graduates to each school. | Teachers to each school.   | Secondary students to a school. | Secondary students to a teacher. | Elementary pupils to a school. | Graduates to each school. |
| United States.....          | 3.0                      | 74                              | 25                               | 268                            | 9.0                       | 3.9                        | 54                              | 14                               | 52                             | 5.5                       |
| North Atlantic Division.... | 3.8                      | 95                              | 25                               | 252                            | 12.5                      | 5.3                        | 63                              | 12                               | 39                             | 8.1                       |
| South Atlantic Division.... | 2.4                      | 54                              | 23                               | 168                            | 5.7                       | 3.0                        | 45                              | 15                               | 54                             | 3.3                       |
| South Central Division....  | 2.3                      | 52                              | 22                               | 214                            | 3.9                       | 2.8                        | 52                              | 18                               | 64                             | 3.4                       |
| North Central Division....  | 2.8                      | 71                              | 25                               | 300                            | 8.9                       | 4.3                        | 56                              | 13                               | 51                             | 6.6                       |
| Western Division.....       | 3.5                      | 89                              | 25                               | 307                            | 10.4                      | 3.8                        | 46                              | 12                               | 70                             | 4.9                       |
| North Atlantic Division:    |                          |                                 |                                  |                                |                           |                            |                                 |                                  |                                |                           |
| Maine.....                  | 2.3                      | 62                              | 27                               | 23                             | 7.1                       | 4.4                        | 85                              | 19                               | 13                             | 10.1                      |
| New Hampshire.....          | 2.9                      | 69                              | 24                               | 92                             | 8.4                       | 5.4                        | 79                              | 15                               | 15                             | 13.2                      |
| Vermont.....                | 2.5                      | 56                              | 22                               | 147                            | 7.8                       | 5.1                        | 90                              | 18                               | 35                             | 12.1                      |
| Massachusetts.....          | 4.8                      | 125                             | 26                               | 145                            | 18.1                      | 0.2                        | 65                              | 10                               | 16                             | 8.8                       |
| Rhode Island.....           | 7.1                      | 174                             | 24                               | 13                             | 25.0                      | 5.3                        | 54                              | 10                               | 46                             | 7.5                       |
| Connecticut.....            | 4.2                      | 96                              | 23                               | 137                            | 12.0                      | 4.3                        | 45                              | 10                               | 20                             | 5.5                       |
| New York.....               | 4.0                      | 98                              | 24                               | 333                            | 10.6                      | 5.5                        | 55                              | 10                               | 59                             | 7.0                       |
| New Jersey.....             | 4.2                      | 104                             | 25                               | 479                            | 14.2                      | 5.1                        | 58                              | 11                               | 38                             | 7.4                       |
| Pennsylvania.....           | 3.2                      | 85                              | 26                               | 368                            | 13.4                      | 5.0                        | 72                              | 14                               | 47                             | 8.7                       |
| South Atlantic Division:    |                          |                                 |                                  |                                |                           |                            |                                 |                                  |                                |                           |
| Delaware.....               | 2.7                      | 75                              | 28                               | 247                            | 10.0                      | 4.8                        | 58                              | 12                               | 49                             | 7.4                       |
| Maryland.....               | 3.0                      | 72                              | 24                               | 138                            | 8.2                       | 4.8                        | 45                              | 9                                | 45                             | 4.6                       |
| District of Columbia.....   | 20.5                     | 567                             | 28                               | 0                              | 100.0                     | 6.3                        | 52                              | 8                                | 84                             | 5.7                       |
| Virginia.....               | 2.1                      | 46                              | 22                               | 134                            | 4.2                       | 2.8                        | 39                              | 14                               | 28                             | 2.3                       |
| West Virginia.....          | 1.8                      | 40                              | 22                               | 357                            | 6.3                       | 2.7                        | 48                              | 18                               | 28                             | 2.0                       |
| North Carolina.....         | 2.3                      | 60                              | 26                               | 227                            | 5.2                       | 2.5                        | 44                              | 18                               | 46                             | 2.4                       |
| South Carolina.....         | 1.8                      | 33                              | 18                               | 129                            | 2.6                       | 2.7                        | 44                              | 16                               | 59                             | 4.6                       |
| Georgia.....                | 2.1                      | 47                              | 22                               | 178                            | 4.1                       | 2.8                        | 50                              | 18                               | 88                             | 3.7                       |
| Florida.....                | 1.9                      | 41                              | 21                               | 125                            | 1.7                       | 3.3                        | 40                              | 12                               | 98                             | 3.3                       |
| South Central Division:     |                          |                                 |                                  |                                |                           |                            |                                 |                                  |                                |                           |
| Kentucky.....               | 2.9                      | 66                              | 23                               | 288                            | 5.6                       | 3.2                        | 57                              | 18                               | 49                             | 3.4                       |
| Tennessee.....              | 2.0                      | 46                              | 22                               | 188                            | 4.7                       | 2.7                        | 51                              | 19                               | 72                             | 3.2                       |
| Alabama.....                | 2.1                      | 51                              | 24                               | 121                            | 4.4                       | 2.3                        | 42                              | 18                               | 53                             | 2.1                       |
| Mississippi.....            | 1.9                      | 36                              | 19                               | 150                            | 1.9                       | 2.4                        | 47                              | 19                               | 67                             | 4.2                       |
| Louisiana.....              | 3.7                      | 65                              | 17                               | 118                            | 7.9                       | 3.2                        | 45                              | 14                               | 68                             | 4.0                       |
| Texas.....                  | 2.5                      | 58                              | 24                               | 241                            | 3.1                       | 3.4                        | 69                              | 20                               | 75                             | 4.4                       |
| Arkansas.....               | 2.0                      | 50                              | 24                               | 253                            | 3.9                       | 2.5                        | 46                              | 18                               | 54                             | 1.8                       |
| Oklahoma.....               | 2.7                      | 50                              | 19                               | 281                            | 3.0                       | 3.5                        | 29                              | 8                                | 29                             | .0                        |
| Indian Territory.....       | 3.0                      | 37                              | 12                               | 1,070                          | 1.4                       | 2.7                        | 31                              | 12                               | 126                            | 9.2                       |
| North Central Division:     |                          |                                 |                                  |                                |                           |                            |                                 |                                  |                                |                           |
| Ohio.....                   | 2.7                      | 69                              | 25                               | 253                            | 9.0                       | 4.4                        | 44                              | 10                               | 54                             | 4.7                       |
| Indiana.....                | 2.6                      | 61                              | 24                               | 300                            | 7.5                       | 4.3                        | 65                              | 15                               | 66                             | 5.7                       |
| Illinois.....               | 3.4                      | 89                              | 26                               | 307                            | 11.2                      | 5.3                        | 72                              | 14                               | 56                             | 7.9                       |
| Michigan.....               | 3.0                      | 78                              | 26                               | 349                            | 8.3                       | 4.5                        | 56                              | 13                               | 126                            | 7.7                       |
| Wisconsin.....              | 2.7                      | 72                              | 26                               | 318                            | 8.6                       | 4.6                        | 56                              | 12                               | 40                             | 9.8                       |
| Minnesota.....              | 4.4                      | 98                              | 22                               | 364                            | 11.6                      | 5.0                        | 51                              | 10                               | 49                             | 7.4                       |
| Iowa.....                   | 2.7                      | 66                              | 24                               | 272                            | 9.3                       | 3.9                        | 76                              | 19                               | 37                             | 9.4                       |
| Missouri.....               | 3.2                      | 84                              | 27                               | 379                            | 9.5                       | 3.5                        | 50                              | 14                               | 39                             | 5.3                       |
| North Dakota.....           | 2.2                      | 35                              | 16                               | 239                            | 3.5                       | 2.5                        | 48                              | 19                               | 77                             | 2.7                       |
| South Dakota.....           | 2.1                      | 41                              | 20                               | 241                            | 4.5                       | 3.3                        | 31                              | 9                                | 35                             | 2.4                       |
| Nebraska.....               | 2.2                      | 56                              | 25                               | 264                            | 6.5                       | 4.4                        | 52                              | 12                               | 48                             | 5.4                       |
| Kansas.....                 | 2.2                      | 58                              | 26                               | 319                            | 8.2                       | 3.8                        | 52                              | 14                               | 36                             | 6.2                       |
| Western Division:           |                          |                                 |                                  |                                |                           |                            |                                 |                                  |                                |                           |
| Montana.....                | 2.4                      | 56                              | 23                               | 439                            | 5.2                       | 2.0                        | 31                              | 16                               | 100                            | 2.0                       |
| Wyoming.....                | 2.6                      | 52                              | 20                               | 364                            | 3.2                       | 3.0                        | 36                              | 12                               | 35                             | .0                        |
| Colorado.....               | 4.0                      | 84                              | 21                               | 294                            | 9.7                       | 3.3                        | 52                              | 16                               | 115                            | 7.3                       |
| New Mexico.....             | 2.7                      | 36                              | 13                               | 243                            | 1.7                       | 2.1                        | 20                              | 9                                | 41                             | 2.2                       |
| Arizona.....                | 1.5                      | 42                              | 28                               | 253                            | 5.1                       |                            |                                 |                                  |                                |                           |
| Utah.....                   | 8.0                      | 257                             | 32                               | 1,683                          | 24.0                      | 4.2                        | 99                              | 24                               | 72                             | 4.4                       |
| Nevada.....                 | 2.5                      | 54                              | 21                               | 320                            | 9.2                       | 1.0                        | 14                              | 14                               | 75                             | .0                        |
| Idaho.....                  | 2.2                      | 43                              | 19                               | 439                            | 5.2                       | 2.0                        | 39                              | 20                               | 10                             | 4.5                       |
| Washington.....             | 2.8                      | 63                              | 23                               | 341                            | 7.2                       | 4.3                        | 56                              | 13                               | 37                             | 2.8                       |
| Oregon.....                 | 2.9                      | 100                             | 35                               | 384                            | 10.9                      | 3.9                        | 42                              | 11                               | 50                             | 4.2                       |
| California.....             | 4.3                      | 117                             | 27                               | 217                            | 14.5                      | 4.0                        | 35                              | 9                                | 80                             | 6.0                       |



TABLE 24.—*Summary of statistics of public and private high schools.*

## SCHOOLS, INSTRUCTORS, AND STUDENTS.

| State or Territory.          | Total number of schools. | Total number of teachers. | Secondary students. | Male.    |           | Female.  |           | Classical preparatory students. |           |
|------------------------------|--------------------------|---------------------------|---------------------|----------|-----------|----------|-----------|---------------------------------|-----------|
|                              |                          |                           |                     | Number.  | Per cent. | Number.  | Per cent. | Number.                         | Per cent. |
| United States .....          | 6, 892                   | 22, 681                   | 468, 446            | 201, 431 | 43. 00    | 267, 015 | 57. 00    | 46, 847                         | 10. 00    |
| North Atlantic Division..... | 1, 829                   | 7, 910                    | 152, 089            | 67, 952  | 44. 68    | 84, 137  | 55. 32    | 18, 646                         | 12. 26    |
| South Atlantic Division..... | 845                      | 2, 309                    | 41, 450             | 18, 659  | 45. 02    | 22, 791  | 54. 98    | 6, 107                          | 14. 73    |
| South Central Division.....  | 1, 066                   | 2, 730                    | 55, 136             | 24, 123  | 43. 75    | 31, 013  | 56. 25    | 7, 914                          | 14. 35    |
| North Central Division.....  | 2, 809                   | 8, 485                    | 194, 932            | 80, 439  | 41. 27    | 114, 493 | 58. 73    | 12, 248                         | 6. 28     |
| Western Division.....        | 343                      | 1, 247                    | 24, 839             | 10, 258  | 41. 30    | 14, 581  | 58. 70    | 1, 932                          | 7. 77     |
| North Atlantic Division:     |                          |                           |                     |          |           |          |           |                                 |           |
| Maine.....                   | 150                      | 425                       | 10, 191             | 4, 568   | 44. 83    | 5, 623   | 55. 17    | 1, 559                          | 15. 30    |
| New Hampshire.....           | 73                       | 272                       | 5, 302              | 2, 638   | 49. 75    | 2, 664   | 50. 25    | 908                             | 17. 13    |
| Vermont.....                 | 75                       | 250                       | 5, 057              | 2, 368   | 46. 83    | 2, 689   | 53. 17    | 564                             | 11. 15    |
| Massachusetts.....           | 311                      | 1, 645                    | 33, 193             | 14, 760  | 44. 47    | 18, 433  | 55. 53    | 5, 947                          | 17. 98    |
| Rhode Island.....            | 26                       | 164                       | 3, 086              | 1, 288   | 41. 74    | 1, 798   | 58. 26    | 712                             | 23. 07    |
| Connecticut.....             | 124                      | 528                       | 8, 660              | 3, 876   | 44. 76    | 4, 784   | 55. 24    | 1, 323                          | 15. 28    |
| New York.....                | 536                      | 2, 459                    | 43, 683             | 19, 105  | 43. 73    | 24, 578  | 56. 27    | 3, 804                          | 8. 70     |
| New Jersey.....              | 138                      | 643                       | 11, 184             | 5, 334   | 47. 69    | 5, 850   | 52. 31    | 1, 352                          | 12. 09    |
| Pennsylvania.....            | 396                      | 1, 524                    | 31, 733             | 14, 015  | 44. 17    | 17, 718  | 55. 87    | 2, 477                          | 7. 80     |
| South Atlantic Division:     |                          |                           |                     |          |           |          |           |                                 |           |
| Delaware.....                | 18                       | 59                        | 1, 269              | 537      | 42. 32    | 732      | 57. 68    | 46                              | 3. 70     |
| Maryland.....                | 91                       | 353                       | 5, 311              | 2, 075   | 39. 07    | 3, 236   | 60. 93    | 282                             | 5. 31     |
| District of Columbia.....    | 19                       | 176                       | 3, 044              | 1, 176   | 38. 63    | 1, 868   | 61. 37    | 215                             | 7. 06     |
| Virginia.....                | 176                      | 433                       | 7, 472              | 3, 526   | 47. 19    | 3, 946   | 52. 81    | 1, 069                          | 14. 31    |
| West Virginia.....           | 39                       | 84                        | 1, 691              | 690      | 40. 81    | 1, 001   | 59. 19    | 142                             | 8. 39     |
| North Carolina.....          | 158                      | 392                       | 7, 226              | 3, 873   | 53. 60    | 3, 353   | 46. 40    | 1, 384                          | 19. 15    |
| South Carolina.....          | 95                       | 214                       | 3, 642              | 1, 682   | 46. 23    | 1, 960   | 53. 77    | 814                             | 22. 35    |
| Georgia.....                 | 213                      | 513                       | 10, 343             | 4, 522   | 43. 72    | 5, 821   | 56. 28    | 2, 087                          | 20. 18    |
| Florida.....                 | 36                       | 85                        | 1, 452              | 578      | 39. 81    | 874      | 60. 19    | 68                              | 4. 68     |
| South Central Division:      |                          |                           |                     |          |           |          |           |                                 |           |
| Kentucky.....                | 148                      | 458                       | 9, 062              | 3, 593   | 39. 65    | 5, 469   | 60. 35    | 894                             | 9. 86     |
| Tennessee.....               | 233                      | 556                       | 11, 361             | 5, 376   | 47. 32    | 5, 985   | 52. 68    | 1, 733                          | 15. 25    |
| Alabama.....                 | 130                      | 290                       | 5, 897              | 2, 856   | 48. 42    | 3, 041   | 51. 57    | 953                             | 16. 16    |
| Mississippi.....             | 161                      | 345                       | 6, 617              | 3, 002   | 45. 37    | 3, 615   | 54. 63    | 1, 009                          | 15. 25    |
| Louisiana.....               | 56                       | 191                       | 2, 957              | 1, 054   | 35. 64    | 1, 903   | 64. 36    | 237                             | 8. 01     |
| Texas.....                   | 233                      | 646                       | 14, 372             | 5, 973   | 41. 56    | 8, 399   | 58. 44    | 2, 032                          | 14. 14    |
| Arkansas.....                | 89                       | 198                       | 4, 293              | 1, 972   | 45. 94    | 2, 321   | 54. 06    | 903                             | 21. 03    |
| Oklahoma.....                | 5                        | 15                        | 210                 | 79       | 37. 62    | 131      | 62. 38    | 111                             | 52. 86    |
| Indian Territory.....        | 11                       | 31                        | 367                 | 218      | 59. 40    | 149      | 40. 60    | 42                              | 11. 44    |
| North Central Division:      |                          |                           |                     |          |           |          |           |                                 |           |
| Ohio.....                    | 530                      | 1, 508                    | 35, 045             | 14, 739  | 42. 06    | 20, 306  | 57. 94    | 2, 082                          | 5. 94     |
| Indiana.....                 | 295                      | 803                       | 18, 149             | 7, 433   | 40. 95    | 10, 716  | 59. 05    | 1, 068                          | 5. 88     |
| Illinois.....                | 360                      | 1, 320                    | 30, 923             | 11, 997  | 38. 80    | 18, 926  | 61. 20    | 1, 816                          | 5. 87     |
| Michigan.....                | 290                      | 893                       | 22, 303             | 9, 231   | 41. 39    | 13, 072  | 58. 61    | 723                             | 3. 24     |
| Wisconsin.....               | 210                      | 623                       | 14, 648             | 6, 536   | 44. 62    | 8, 112   | 55. 38    | 638                             | 4. 35     |
| Minnesota.....               | 125                      | 667                       | 10, 900             | 4, 605   | 42. 25    | 6, 295   | 57. 75    | 502                             | 4. 60     |
| Iowa.....                    | 338                      | 969                       | 22, 791             | 9, 528   | 41. 81    | 13, 259  | 58. 19    | 1, 290                          | 5. 39     |
| Missouri.....                | 243                      | 799                       | 17, 578             | 7, 027   | 39. 98    | 10, 551  | 60. 02    | 1, 471                          | 8. 36     |
| North Dakota.....            | 25                       | 56                        | 919                 | 421      | 45. 81    | 498      | 54. 19    | 87                              | 4. 02     |
| South Dakota.....            | 36                       | 84                        | 1, 418              | 608      | 42. 88    | 810      | 57. 12    | 215                             | 15. 16    |
| Nebraska.....                | 178                      | 426                       | 9, 971              | 4, 086   | 40. 98    | 5, 885   | 59. 02    | 1, 210                          | 12. 14    |
| Kansas.....                  | 179                      | 437                       | 10, 291             | 4, 228   | 41. 08    | 6, 063   | 58. 92    | 1, 256                          | 12. 20    |
| Western Division:            |                          |                           |                     |          |           |          |           |                                 |           |
| Montana.....                 | 21                       | 49                        | 1, 070              | 389      | 36. 36    | 685      | 63. 64    | 116                             | 10. 84    |
| Wyoming.....                 | 7                        | 19                        | 332                 | 142      | 42. 77    | 190      | 57. 23    | 14                              | 4. 21     |
| Colorado.....                | 50                       | 196                       | 3, 993              | 1, 581   | 39. 59    | 2, 412   | 60. 41    | 380                             | 9. 51     |
| New Mexico.....              | 12                       | 29                        | 333                 | 171      | 51. 35    | 162      | 48. 65    | 24                              | 7. 20     |
| Arizona.....                 | 4                        | 6                         | 168                 | 60       | 35. 71    | 108      | 64. 29    | 8                               | 4. 76     |
| Utah.....                    | 19                       | 87                        | 2, 205              | 947      | 42. 95    | 1, 258   | 57. 05    | 243                             | 11. 02    |
| Nevada.....                  | 7                        | 16                        | 336                 | 110      | 32. 74    | 226      | 67. 26    | 23                              | 6. 84     |
| Idaho.....                   | 8                        | 17                        | 334                 | 128      | 38. 32    | 206      | 61. 68    | 22                              | 6. 57     |
| Washington.....              | 42                       | 137                       | 2, 564              | 1, 008   | 39. 31    | 1, 556   | 60. 69    | 157                             | 6. 12     |
| Oregon.....                  | 29                       | 98                        | 2, 092              | 904      | 43. 21    | 1, 189   | 56. 79    | 173                             | 8. 27     |
| California.....              | 144                      | 593                       | 11, 411             | 4, 818   | 42. 22    | 6, 593   | 57. 78    | 772                             | 6. 76     |

TABLE 25.—*Summary of statistics of public and private high schools.*

## STUDENTS AND COURSES OF STUDY.

| State or Territory.        | Scientific preparatory students. |           | Total college preparatory students. |           | Graduates in 1895. |           | Graduates prepared for college. |           |
|----------------------------|----------------------------------|-----------|-------------------------------------|-----------|--------------------|-----------|---------------------------------|-----------|
|                            | Number.                          | Per cent. | Number.                             | Per cent. | Number.            | Per cent. | Number.                         | Per cent. |
| United States.....         | 33,350                           | 7.11      | 80,197                              | 17.11     | 54,353             | 11.60     | 17,636                          | 32.44     |
| North Atlantic Division... | 11,077                           | 7.28      | 29,723                              | 20.54     | 19,946             | 13.11     | 5,797                           | 29.06     |
| South Atlantic Division... | 1,919                            | 5.82      | 8,020                               | 20.55     | 3,671              | 8.85      | 1,377                           | 40.23     |
| South Central Division...  | 4,704                            | 8.53      | 12,618                              | 22.88     | 3,882              | 7.04      | 1,583                           | 40.78     |
| North Central Division...  | 12,979                           | 6.65      | 25,227                              | 12.93     | 24,014             | 12.60     | 7,692                           | 32.03     |
| Western Division.....      | 2,671                            | 10.75     | 4,603                               | 18.52     | 2,840              | 11.43     | 1,187                           | 41.80     |
| North Atlantic Division:   |                                  |           |                                     |           |                    |           |                                 |           |
| Maine.....                 | 387                              | 3.79      | 1,946                               | 19.10     | 1,176              | 11.54     | 351                             | 29.85     |
| New Hampshire.....         | 458                              | 8.63      | 1,366                               | 25.76     | 732                | 13.81     | 277                             | 37.84     |
| Vermont.....               | 563                              | 11.13     | 1,127                               | 22.29     | 692                | 13.68     | 204                             | 29.48     |
| Massachusetts.....         | 2,078                            | 6.26      | 8,025                               | 24.24     | 4,745              | 14.30     | 1,347                           | 28.39     |
| Rhode Island.....          | 129                              | 4.18      | 841                                 | 27.25     | 446                | 14.45     | 156                             | 34.98     |
| Connecticut.....           | 659                              | 7.61      | 1,982                               | 22.89     | 1,076              | 12.42     | 278                             | 35.13     |
| New York.....              | 3,426                            | 7.84      | 7,230                               | 16.54     | 4,949              | 11.33     | 1,550                           | 31.32     |
| New Jersey.....            | 1,254                            | 11.21     | 2,606                               | 23.30     | 1,485              | 13.28     | 459                             | 30.91     |
| Pennsylvania.....          | 2,123                            | 6.69      | 4,600                               | 14.49     | 4,645              | 14.61     | 1,075                           | 23.14     |
| South Atlantic Division:   |                                  |           |                                     |           |                    |           |                                 |           |
| Delaware.....              | 35                               | 2.75      | 81                                  | 6.45      | 167                | 13.16     | 32                              | 19.16     |
| Maryland.....              | 95                               | 1.78      | 377                                 | 7.09      | 584                | 11.00     | 133                             | 22.77     |
| District of Columbia...    | 139                              | 4.56      | 354                                 | 11.62     | 485                | 15.93     | 55                              | 11.34     |
| Virginia.....              | 375                              | 5.01      | 1,444                               | 19.32     | 568                | 7.60      | 203                             | 35.74     |
| West Virginia.....         | 50                               | 2.95      | 192                                 | 11.34     | 180                | 10.64     | 29                              | 16.11     |
| North Carolina.....        | 408                              | 5.64      | 1,792                               | 24.79     | 427                | 5.90      | 234                             | 54.80     |
| South Carolina.....        | 233                              | 6.39      | 1,047                               | 28.74     | 337                | 9.25      | 187                             | 55.49     |
| Georgia.....               | 542                              | 5.24      | 2,629                               | 25.42     | 844                | 8.16      | 483                             | 57.23     |
| Florida.....               | 42                               | 2.89      | 110                                 | 7.57      | 79                 | 5.44      | 21                              | 26.58     |
| South Central Division:    |                                  |           |                                     |           |                    |           |                                 |           |
| Kentucky.....              | 563                              | 6.21      | 1,457                               | 16.07     | 644                | 7.10      | 253                             | 39.29     |
| Tennessee.....             | 1,072                            | 9.43      | 2,805                               | 24.68     | 899                | 7.91      | 376                             | 41.82     |
| Alabama.....               | 604                              | 10.24     | 1,557                               | 26.40     | 393                | 6.66      | 100                             | 25.44     |
| Mississippi.....           | 740                              | 11.16     | 1,749                               | 26.41     | 475                | 7.17      | 302                             | 63.58     |
| Louisiana.....             | 239                              | 8.08      | 476                                 | 16.09     | 310                | 10.48     | 72                              | 23.23     |
| Texas.....                 | 1,047                            | 7.28      | 3,079                               | 21.42     | 819                | 5.69      | 318                             | 38.74     |
| Arkansas.....              | 312                              | 7.26      | 1,215                               | 28.29     | 271                | 6.31      | 110                             | 40.59     |
| Oklahoma.....              | 72                               | 34.28     | 183                                 | 87.14     | 9                  | 4.28      | 6                               | 66.66     |
| Indian Territory.....      | 55                               | 14.99     | 97                                  | 27.43     | 62                 | 16.89     | 46                              | 74.19     |
| North Central Division:    |                                  |           |                                     |           |                    |           |                                 |           |
| Ohio.....                  | 1,814                            | 5.17      | 3,896                               | 11.11     | 4,528              | 12.92     | 1,015                           | 22.41     |
| Indiana.....               | 529                              | 2.91      | 1,597                               | 8.79      | 2,178              | 12.00     | 677                             | 31.08     |
| Illinois.....              | 2,028                            | 6.55      | 3,844                               | 12.42     | 3,843              | 12.43     | 1,113                           | 28.96     |
| Michigan.....              | 1,781                            | 7.98      | 2,504                               | 11.22     | 2,386              | 10.70     | 901                             | 37.76     |
| Wisconsin.....             | 908                              | 6.19      | 1,546                               | 11.54     | 1,844              | 12.59     | 581                             | 31.51     |
| Minnesota.....             | 2,001                            | 18.36     | 2,503                               | 22.96     | 1,333              | 12.23     | 706                             | 52.96     |
| Iowa.....                  | 1,356                            | 5.95      | 1,586                               | 11.34     | 3,161              | 13.87     | 981                             | 31.04     |
| Missouri.....              | 1,032                            | 5.87      | 2,503                               | 14.23     | 1,950              | 11.09     | 512                             | 26.26     |
| North Dakota.....          | 87                               | 9.46      | 124                                 | 13.48     | 84                 | 9.14      | 45                              | 53.57     |
| South Dakota.....          | 47                               | 3.31      | 262                                 | 18.47     | 148                | 10.44     | 60                              | 40.54     |
| Nebraska.....              | 653                              | 6.54      | 1,863                               | 18.68     | 1,135              | 11.38     | 501                             | 44.14     |
| Kansas.....                | 743                              | 7.22      | 1,999                               | 19.42     | 1,424              | 13.84     | 600                             | 42.14     |
| Western Division:          |                                  |           |                                     |           |                    |           |                                 |           |
| Montana.....               | 100                              | 9.34      | 216                                 | 20.18     | 97                 | 9.04      | 43                              | 44.33     |
| Wyoming.....               | 0                                | 0.00      | 14                                  | 4.21      | 16                 | 4.81      | 2                               | 12.50     |
| Colorado.....              | 706                              | 17.68     | 1,086                               | 27.19     | 460                | 11.75     | 190                             | 40.51     |
| New Mexico.....            | 11                               | 3.30      | 35                                  | 10.50     | 23                 | 6.90      | 11                              | 47.82     |
| Arizona.....               | 0                                | 0.00      | 8                                   | 4.76      | 23                 | 13.69     | 0                               | 0.00      |
| Utah.....                  | 135                              | 6.12      | 378                                 | 17.14     | 124                | 5.62      | 55                              | 44.35     |
| Nevada.....                | 9                                | 2.67      | 32                                  | 9.51      | 55                 | 16.37     | 20                              | 36.36     |
| Idaho.....                 | 5                                | 1.49      | 27                                  | 8.06      | 40                 | 11.98     | 22                              | 55.00     |
| Washington.....            | 171                              | 6.66      | 328                                 | 12.78     | 245                | 9.55      | 93                              | 37.96     |
| Oregon.....                | 182                              | 8.70      | 355                                 | 16.97     | 223                | 10.66     | 75                              | 33.63     |
| California.....            | 1,352                            | 11.85     | 2,122                               | 18.61     | 1,525              | 13.36     | 676                             | 44.33     |

TABLE 26.—*Summary of statistics of public and private high schools.*

## STUDENTS IN CERTAIN STUDIES.

| State or Territory.        | Latin.  |           | Greek.  |           | French. |           | German. |           |
|----------------------------|---------|-----------|---------|-----------|---------|-----------|---------|-----------|
|                            | Number. | Per cent. | Number. | Per cent. | Number. | Per cent. | Number. | Per cent. |
| United States.....         | 205,006 | 43.76     | 22,159  | 4.73      | 45,746  | 9.77      | 58,921  | 12.58     |
| North Atlantic Division... | 67,066  | 44.10     | 12,791  | 8.41      | 28,550  | 18.77     | 25,058  | 16.48     |
| South Atlantic Division... | 23,085  | 55.69     | 2,143   | 5.17      | 5,739   | 13.85     | 4,299   | 10.37     |
| South Central Division...  | 24,014  | 43.55     | 2,028   | 3.68      | 3,283   | 5.95      | 2,714   | 4.92      |
| North Central Division...  | 80,120  | 41.10     | 4,260   | 2.19      | 6,438   | 3.30      | 23,581  | 12.10     |
| Western Division.....      | 10,721  | 43.16     | 937     | 3.77      | 1,736   | 6.99      | 3,269   | 13.16     |
| North Atlantic Division:   |         |           |         |           |         |           |         |           |
| Maine.....                 | 4,576   | 44.90     | 1,364   | 13.38     | 1,429   | 14.02     | 169     | 1.66      |
| New Hampshire.....         | 2,862   | 53.98     | 781     | 14.73     | 1,389   | 26.20     | 262     | 4.94      |
| Vermont.....               | 1,947   | 38.50     | 377     | 7.46      | 500     | 9.89      | 239     | 4.73      |
| Massachusetts.....         | 17,129  | 51.60     | 3,677   | 11.08     | 12,619  | 38.02     | 3,882   | 11.70     |
| Rhode Island.....          | 1,743   | 56.48     | 413     | 13.38     | 942     | 30.52     | 321     | 10.40     |
| Connecticut.....           | 4,754   | 54.90     | 865     | 9.99      | 1,656   | 19.12     | 1,890   | 21.82     |
| New York.....              | 14,099  | 32.28     | 2,534   | 5.80      | 5,838   | 13.36     | 9,207   | 21.08     |
| New Jersey.....            | 4,618   | 41.29     | 1,060   | 9.48      | 1,682   | 15.04     | 3,135   | 28.03     |
| Pennsylvania.....          | 15,338  | 48.33     | 1,720   | 5.42      | 2,495   | 7.86      | 5,953   | 18.76     |
| South Atlantic Division:   |         |           |         |           |         |           |         |           |
| Delaware.....              | 968     | 76.28     | 28      | 2.21      | 120     | 9.46      | 63      | 4.96      |
| Maryland.....              | 3,310   | 62.32     | 306     | 5.76      | 1,159   | 21.45     | 1,531   | 28.83     |
| District of Columbia...    | 1,433   | 47.08     | 162     | 5.32      | 667     | 21.91     | 842     | 27.66     |
| Virginia.....              | 4,383   | 58.66     | 243     | 3.25      | 1,077   | 14.41     | 1,260   | 16.86     |
| West Virginia.....         | 576     | 34.06     | 40      | 2.37      | 67      | 3.96      | 52      | 3.08      |
| North Carolina.....        | 3,527   | 48.81     | 504     | 6.97      | 575     | 7.96      | 229     | 3.17      |
| South Carolina.....        | 1,898   | 52.11     | 189     | 5.19      | 558     | 15.32     | 139     | 3.82      |
| Georgia.....               | 6,216   | 60.10     | 651     | 6.29      | 1,431   | 13.84     | 140     | 1.35      |
| Florida.....               | 774     | 53.31     | 20      | 1.38      | 105     | 7.23      | 43      | 2.96      |
| South Central Division:    |         |           |         |           |         |           |         |           |
| Kentucky.....              | 4,208   | 46.44     | 492     | 5.43      | 442     | 4.88      | 970     | 10.70     |
| Tennessee.....             | 5,074   | 44.66     | 582     | 5.12      | 303     | 2.67      | 264     | 2.32      |
| Alabama.....               | 2,884   | 48.91     | 324     | 5.49      | 507     | 8.60      | 231     | 3.92      |
| Mississippi.....           | 2,398   | 36.24     | 195     | 2.95      | 143     | 2.16      | 118     | 1.78      |
| Louisiana.....             | 1,279   | 43.25     | 61      | 2.06      | 1,378   | 46.60     | 98      | 3.31      |
| Texas.....                 | 6,228   | 43.33     | 268     | 1.86      | 372     | 2.59      | 792     | 5.51      |
| Arkansas.....              | 1,642   | 38.25     | 85      | 1.98      | 127     | 2.96      | 202     | 4.71      |
| Oklahoma.....              | 142     | 67.62     | 12      | 5.71      | 8       | 3.81      | 30      | 14.29     |
| Indian Territory.....      | 159     | 43.32     | 9       | 2.45      | 3       | 0.82      | 9       | 2.45      |
| North Central Division:    |         |           |         |           |         |           |         |           |
| Ohio.....                  | 17,625  | 50.29     | 931     | 2.66      | 1,099   | 3.14      | 4,150   | 11.84     |
| Indiana.....               | 9,238   | 50.90     | 137     | 0.75      | 326     | 1.80      | 1,353   | 7.45      |
| Illinois.....              | 13,085  | 42.31     | 605     | 1.96      | 2,073   | 6.70      | 3,952   | 12.78     |
| Michigan.....              | 6,777   | 30.39     | 400     | 1.79      | 745     | 3.34      | 3,494   | 15.67     |
| Wisconsin.....             | 3,599   | 24.57     | 424     | 2.89      | 292     | 1.99      | 3,364   | 22.97     |
| Minnesota.....             | 5,439   | 49.90     | 336     | 3.08      | 601     | 5.51      | 1,718   | 15.76     |
| Iowa.....                  | 7,973   | 34.98     | 350     | 1.54      | 143     | 0.63      | 1,873   | 8.22      |
| Missouri.....              | 6,647   | 37.81     | 668     | 3.80      | 840     | 4.78      | 1,820   | 10.35     |
| North Dakota.....          | 430     | 46.79     | 4       | 0.44      | 10      | 1.09      | 9       | 0.98      |
| South Dakota.....          | 523     | 36.88     | 21      | 1.48      | 42      | 2.96      | 175     | 12.34     |
| Nebraska.....              | 3,886   | 38.97     | 139     | 1.39      | 144     | 1.44      | 675     | 6.77      |
| Kansas.....                | 4,898   | 47.59     | 245     | 2.38      | 123     | 1.20      | 998     | 9.70      |
| Western Division:          |         |           |         |           |         |           |         |           |
| Montana.....               | 503     | 47.01     | 1       | 0.09      | 34      | 3.18      | 67      | 6.26      |
| Wyoming.....               | 130     | 39.16     | 3       | 0.90      | -----   | -----     | -----   | -----     |
| Colorado.....              | 2,198   | 55.05     | 244     | 6.11      | 292     | 7.31      | 1,054   | 26.40     |
| New Mexico.....            | 92      | 27.63     | 1       | 0.30      | 1       | 0.30      | 4       | 1.20      |
| Arizona.....               | 22      | 13.10     | -----   | -----     | -----   | -----     | -----   | -----     |
| Utah.....                  | 472     | 21.41     | 41      | 1.86      | 75      | 3.40      | 166     | 7.53      |
| Nevada.....                | 99      | 29.46     | -----   | -----     | -----   | -----     | 6       | 1.79      |
| Idaho.....                 | 131     | 39.22     | 1       | 0.30      | -----   | -----     | 17      | 5.09      |
| Washington.....            | 967     | 37.71     | 68      | 2.65      | 131     | 5.11      | 315     | 12.29     |
| Oregon.....                | 626     | 29.92     | 69      | 3.30      | 95      | 4.54      | 347     | 16.59     |
| California.....            | 5,481   | 48.03     | 509     | 4.46      | 1,108   | 9.71      | 1,293   | 11.33     |

TABLE 27.—*Summary of statistics of public and private high schools.*

## STUDENTS IN CERTAIN STUDIES.

| State or Territory.        | Algebra. |           | Geometry. |           | Trigonometry. |           | Astronomy. |           |
|----------------------------|----------|-----------|-----------|-----------|---------------|-----------|------------|-----------|
|                            | Number.  | Per cent. | Number.   | Per cent. | Number.       | Per cent. | Number.    | Per cent. |
| United States.....         | 245,465  | 52.40     | 114,813   | 24.51     | 15,243        | 3.25      | 24,690     | 5.27      |
| North Atlantic Division... | 74,754   | 49.15     | 38,857    | 25.55     | 3,805         | 2.50      | 5,600      | 6.31      |
| South Atlantic Division... | 24,341   | 58.72     | 10,726    | 25.88     | 2,604         | 6.28      | 1,981      | 4.78      |
| South Central Division...  | 32,516   | 58.97     | 13,963    | 25.32     | 3,794         | 6.88      | 3,063      | 5.56      |
| North Central Division...  | 100,250  | 51.43     | 43,945    | 22.54     | 4,303         | 2.21      | 8,956      | 4.59      |
| Western Division.....      | 13,604   | 54.77     | 7,322     | 29.48     | 737           | 2.97      | 1,080      | 4.39      |
| North Atlantic Division:   |          |           |           |           |               |           |            |           |
| Maine.....                 | 5,020    | 49.36     | 2,191     | 21.50     | 55            | 0.54      | 812        | 7.97      |
| New Hampshire.....         | 2,274    | 24.89     | 1,353     | 25.52     | 142           | 2.68      | 363        | 6.85      |
| Vermont.....               | 1,812    | 35.83     | 911       | 18.01     | 35            | 0.69      | 428        | 8.46      |
| Massachusetts.....         | 14,931   | 44.98     | 9,071     | 29.14     | 378           | 1.14      | 2,170      | 6.54      |
| Rhode Island.....          | 1,616    | 52.37     | 723       | 23.43     | 105           | 3.40      | 238        | 7.71      |
| Connecticut.....           | 4,202    | 48.52     | 2,318     | 26.77     | 191           | 2.21      | 525        | 6.06      |
| New York.....              | 17,524   | 40.12     | 9,399     | 21.52     | 1,143         | 2.62      | 2,287      | 5.24      |
| New Jersey.....            | 7,353    | 65.75     | 3,093     | 27.66     | 561           | 5.02      | 721        | 6.45      |
| Pennsylvania.....          | 20,012   | 63.06     | 9,198     | 28.99     | 1,195         | 3.77      | 2,056      | 6.48      |
| South Atlantic Division:   |          |           |           |           |               |           |            |           |
| Delaware.....              | 810      | 63.83     | 357       | 28.13     | 43            | 3.39      | 11         | 0.87      |
| Maryland.....              | 3,735    | 70.33     | 2,989     | 56.28     | 658           | 12.39     | 486        | 9.15      |
| District of Columbia...    | 1,260    | 41.39     | 699       | 22.96     | 121           | 3.98      | 176        | 5.78      |
| Virginia.....              | 4,267    | 57.11     | 1,555     | 20.81     | 454           | 6.08      | 133        | 1.78      |
| West Virginia.....         | 960      | 56.77     | 373       | 22.06     | 36            | 2.13      | 51         | 3.02      |
| North Carolina.....        | 3,441    | 47.62     | 871       | 12.05     | 137           | 1.90      | 242        | 3.35      |
| South Carolina.....        | 2,271    | 62.36     | 685       | 18.81     | 73            | 2.60      | 125        | 3.43      |
| Georgia.....               | 6,821    | 65.95     | 2,852     | 27.57     | 955           | 9.23      | 574        | 5.55      |
| Florida.....               | 776      | 53.44     | 345       | 23.76     | 127           | 8.75      | 183        | 12.60     |
| South Central Division:    |          |           |           |           |               |           |            |           |
| Kentucky.....              | 4,823    | 53.22     | 2,037     | 22.48     | 758           | 8.36      | 429        | 4.73      |
| Tennessee.....             | 6,411    | 56.43     | 2,429     | 21.38     | 542           | 4.77      | 462        | 4.07      |
| Alabama.....               | 3,696    | 62.68     | 1,876     | 31.81     | 806           | 13.67     | 580        | 9.84      |
| Mississippi.....           | 3,422    | 51.72     | 1,198     | 18.10     | 398           | 6.01      | 259        | 3.91      |
| Louisiana.....             | 1,794    | 60.67     | 672       | 22.73     | 149           | 5.04      | 444        | 15.02     |
| Texas.....                 | 9,485    | 66.00     | 4,827     | 33.59     | 919           | 6.39      | 704        | 4.90      |
| Arkansas.....              | 2,482    | 57.82     | 740       | 17.45     | 173           | 4.03      | 148        | 3.45      |
| Oklahoma.....              | 176      | 83.81     | 59        | 28.10     | 13            | 6.19      | 15         | 7.14      |
| Indian Territory.....      | 227      | 61.85     | 116       | 31.61     | 36            | 9.81      | 22         | 5.99      |
| North Central Division:    |          |           |           |           |               |           |            |           |
| Ohio.....                  | 20,374   | 58.14     | 9,036     | 25.78     | 1,513         | 4.32      | 1,714      | 4.89      |
| Indiana.....               | 9,812    | 54.06     | 4,046     | 22.29     | 301           | 1.66      | 551        | 3.04      |
| Illinois.....              | 14,890   | 48.15     | 7,062     | 22.84     | 583           | 1.89      | 1,938      | 6.27      |
| Michigan.....              | 11,051   | 49.55     | 4,268     | 19.14     | 214           | 1.09      | 922        | 4.13      |
| Wisconsin.....             | 6,625    | 45.23     | 3,080     | 21.03     | 179           | 1.22      | 221        | 1.51      |
| Minnesota.....             | 5,123    | 47.00     | 2,846     | 26.11     | 45            | 0.41      | 424        | 3.89      |
| Iowa.....                  | 11,313   | 49.64     | 4,967     | 21.79     | 374           | 1.64      | 1,648      | 7.23      |
| Missouri.....              | 9,315    | 52.99     | 3,594     | 20.45     | 662           | 3.77      | 868        | 4.94      |
| North Dakota.....          | 444      | 48.31     | 209       | 22.74     | 6             | 0.65      | 62         | 6.75      |
| South Dakota.....          | 660      | 46.54     | 293       | 20.66     | 26            | 1.83      | 67         | 4.72      |
| Nebraska.....              | 5,342    | 51.58     | 2,245     | 22.52     | 200           | 2.01      | 203        | 2.04      |
| Kansas.....                | 5,301    | 51.51     | 2,299     | 22.34     | 170           | 1.65      | 338        | 3.28      |
| Western Division:          |          |           |           |           |               |           |            |           |
| Montana.....               | 512      | 47.85     | 160       | 14.95     | 11            | 1.05      | 37         | 3.46      |
| Wyoming.....               | 102      | 30.72     | 94        | 28.31     | 13            | 3.92      | 8          | 2.41      |
| Colorado.....              | 1,977    | 49.51     | 1,189     | 29.55     | 161           | 4.03      | 215        | 5.38      |
| New Mexico.....            | 157      | 47.15     | 34        | 10.21     | 1             | 0.30      | 8          | 2.40      |
| Arizona.....               | 131      | 77.98     | 33        | 19.64     | 3             | 1.79      | 6          | 3.57      |
| Utah.....                  | 674      | 30.57     | 321       | 14.56     | 58            | 2.63      | 66         | 2.99      |
| Nevada.....                | 290      | 86.31     | 155       | 46.13     | 2             | 0.00      | .....      | .....     |
| Idaho.....                 | 183      | 54.79     | 106       | 31.74     | 3             | 0.90      | 15         | 4.49      |
| Washington.....            | 1,438    | 56.08     | 572       | 22.31     | 58            | 2.26      | 96         | 3.74      |
| Oregon.....                | 1,298    | 62.05     | 424       | 20.27     | 69            | 3.30      | 94         | 4.49      |
| California.....            | 6,842    | 59.96     | 4,243     | 37.18     | 358           | 3.14      | 545        | 4.78      |



TABLE 28.—*Summary of statistics of public and private high schools.*

## STUDENTS IN CERTAIN STUDIES.

| State or Territory.        | Physics. |           | Chemistry. |           | Physical geog-<br>raphy. |           | Geology. |           |
|----------------------------|----------|-----------|------------|-----------|--------------------------|-----------|----------|-----------|
|                            | Number.  | Per cent. | Number.    | Per cent. | Number.                  | Per cent. | Number.  | Per cent. |
| United States.....         | 103,768  | 22.15     | 43,607     | 9.31      | 105,124                  | 22.44     | 25,866   | 5.52      |
| North Atlantic Division... | 32,012   | 21.05     | 15,954     | 10.49     | 30,203                   | 19.86     | 9,890    | 6.50      |
| South Atlantic Division... | 9,914    | 23.92     | 3,633      | 8.76      | 9,661                    | 23.31     | 1,573    | 3.79      |
| South Central Division...  | 14,738   | 26.73     | 4,779      | 8.67      | 13,230                   | 24.00     | 4,457    | 8.08      |
| North Central Division...  | 41,023   | 21.04     | 15,939     | 8.18      | 48,230                   | 24.74     | 8,681    | 4.45      |
| Western Division.....      | 6,081    | 24.48     | 3,302      | 13.29     | 3,800                    | 15.30     | 1,265    | 5.09      |
| North Atlantic Division:   |          |           |            |           |                          |           |          |           |
| Maine.....                 | 1,809    | 17.75     | 1,021      | 10.02     | 1,779                    | 17.46     | 798      | 7.83      |
| New Hampshire.....         | 1,072    | 20.22     | 637        | 12.01     | 575                      | 10.84     | 284      | 5.36      |
| Vermont.....               | 749      | 14.81     | 456        | 9.02      | 1,018                    | 20.13     | 428      | 8.46      |
| Massachusetts.....         | 7,415    | 22.34     | 4,186      | 12.61     | 3,292                    | 9.92      | 1,810    | 5.45      |
| Rhode Island.....          | 601      | 19.48     | 291        | 9.43      | 215                      | 7.94      | 241      | 7.81      |
| Connecticut.....           | 1,849    | 21.35     | 876        | 10.12     | 1,447                    | 16.71     | 635      | 7.33      |
| New York.....              | 6,843    | 15.67     | 3,602      | 8.25      | 9,470                    | 21.68     | 2,878    | 6.59      |
| New Jersey.....            | 2,999    | 26.82     | 1,309      | 11.70     | 2,555                    | 23.11     | 884      | 7.90      |
| Pennsylvania.....          | 8,675    | 27.34     | 3,576      | 11.27     | 9,792                    | 30.86     | 1,932    | 6.03      |
| South Atlantic Division:   |          |           |            |           |                          |           |          |           |
| Delaware.....              | 389      | 30.65     | 230        | 18.12     | 463                      | 36.49     | .....    | .....     |
| Maryland.....              | 2,265    | 42.65     | 586        | 11.03     | 1,143                    | 21.52     | 129      | 2.43      |
| District of Columbia.....  | 759      | 24.93     | 327        | 10.74     | 240                      | 7.88      | 91       | 2.99      |
| Virginia.....              | 1,686    | 22.56     | 687        | 9.19      | 1,905                    | 26.30     | 290      | 3.88      |
| West Virginia.....         | 325      | 19.22     | 80         | 4.73      | 524                      | 30.99     | 82       | 4.85      |
| North Carolina.....        | 1,044    | 14.45     | 361        | 5.00      | 1,477                    | 20.44     | 312      | 4.32      |
| South Carolina.....        | 728      | 19.99     | 205        | 5.63      | 1,020                    | 28.01     | 113      | 3.10      |
| Georgia.....               | 2,289    | 23.13     | 938        | 9.07      | 2,195                    | 21.22     | 516      | 4.99      |
| Florida.....               | 429      | 29.55     | 219        | 15.08     | 634                      | 43.66     | 40       | 2.75      |
| South Central Division:    |          |           |            |           |                          |           |          |           |
| Kentucky.....              | 1,652    | 18.23     | 797        | 8.79      | 1,430                    | 15.78     | 392      | 4.33      |
| Tennessee.....             | 2,092    | 18.41     | 712        | 6.27      | 1,915                    | 16.86     | 1,372    | 12.08     |
| Alabama.....               | 1,771    | 30.03     | 782        | 13.26     | 1,558                    | 26.42     | 668      | 11.33     |
| Mississippi.....           | 2,590    | 39.14     | 477        | 7.21      | 1,516                    | 22.91     | 427      | 6.45      |
| Louisiana.....             | 969      | 32.77     | 472        | 15.96     | 1,029                    | 34.80     | 204      | 6.90      |
| Texas.....                 | 4,614    | 32.10     | 1,238      | 8.61      | 4,103                    | 28.55     | 1,173    | 8.16      |
| Arkansas.....              | 825      | 19.22     | 217        | 5.05      | 1,475                    | 34.36     | 166      | 3.87      |
| Oklahoma.....              | 67       | 31.90     | 27         | 12.86     | 73                       | 34.76     | 36       | 17.14     |
| Indian Territory.....      | 153      | 43.05     | 57         | 15.53     | 131                      | 35.69     | 19       | 5.18      |
| North Central Division:    |          |           |            |           |                          |           |          |           |
| Ohio.....                  | 7,254    | 20.70     | 3,000      | 8.56      | 9,234                    | 26.35     | 1,174    | 3.35      |
| Indiana.....               | 4,117    | 22.68     | 1,519      | 8.37      | 5,088                    | 28.03     | 779      | 4.29      |
| Illinois.....              | 6,851    | 22.16     | 3,286      | 10.63     | 5,808                    | 18.78     | 1,524    | 4.93      |
| Michigan.....              | 4,443    | 19.92     | 1,881      | 8.43      | 4,099                    | 18.38     | 935      | 4.19      |
| Wisconsin.....             | 2,639    | 18.02     | 638        | 4.36      | 4,844                    | 33.07     | 349      | 2.38      |
| Minnesota.....             | 1,717    | 15.75     | 1,658      | 9.71      | 2,297                    | 21.07     | 374      | 3.43      |
| Iowa.....                  | 4,820    | 21.15     | 1,323      | 5.80      | 6,544                    | 28.71     | 1,495    | 6.56      |
| Missouri.....              | 3,988    | 22.69     | 1,520      | 8.65      | 3,711                    | 21.11     | 1,042    | 5.93      |
| North Dakota.....          | 219      | 23.83     | 68         | 7.40      | 262                      | 28.51     | 58       | 6.31      |
| South Dakota.....          | 317      | 22.36     | 137        | 9.66      | 513                      | 36.18     | 92       | 6.49      |
| Nebraska.....              | 2,101    | 21.07     | 894        | 8.97      | 2,810                    | 28.18     | 376      | 3.77      |
| Kansas.....                | 2,557    | 24.85     | 615        | 5.98      | 3,020                    | 29.35     | 483      | 4.69      |
| Western Division:          |          |           |            |           |                          |           |          |           |
| Montana.....               | 294      | 27.48     | 127        | 11.87     | 201                      | 18.79     | 106      | 9.91      |
| Wyoming.....               | 32       | 9.64      | 17         | 5.12      | 85                       | 25.90     | 12       | 3.61      |
| Colorado.....              | 951      | 23.82     | 555        | 13.90     | 783                      | 19.61     | 361      | 9.04      |
| New Mexico.....            | 74       | 22.22     | 33         | 9.91      | 93                       | 27.93     | 17       | 5.11      |
| Arizona.....               | 76       | 45.24     | 6          | 3.57      | 46                       | 27.38     | 20       | 11.90     |
| Utah.....                  | 196      | 8.89      | 112        | 5.08      | 200                      | 9.07      | 94       | 4.26      |
| Nevada.....                | 132      | 39.29     | 108        | 32.14     | 167                      | 49.70     | .....    | .....     |
| Idaho.....                 | 111      | 33.23     | .....      | .....     | 160                      | 47.90     | 9        | 2.69      |
| Washington.....            | 643      | 25.08     | 202        | 7.88      | 669                      | 26.09     | 219      | 8.54      |
| Oregon.....                | 445      | 21.27     | 187        | 8.94      | 494                      | 23.61     | 49       | 2.34      |
| California.....            | 3,127    | 27.40     | 1,955      | 17.13     | 901                      | 7.90      | 378      | 3.31      |

TABLE 29.—*Summary of statistics of public high schools.*

## STUDENTS IN CERTAIN STUDIES.

| State or Territory.          | Physiology. |           | Psychology. |           | Rhetoric. |           | History. |           |
|------------------------------|-------------|-----------|-------------|-----------|-----------|-----------|----------|-----------|
|                              | Number.     | Per cent. | Number.     | Per cent. | Number.   | Per cent. | Number.  | Per cent. |
| United States.....           | 131,304     | 28.03     | 15,677      | 3.35      | 146,672   | 31.31     | 162,336  | 34.65     |
| North Atlantic Division..... | 39,249      | 25.81     | 3,754       | 2.47      | 41,921    | 27.56     | 54,006   | 35.51     |
| South Atlantic Division..... | 10,924      | 26.35     | 1,282       | 3.09      | 13,657    | 32.95     | 18,022   | 43.48     |
| South Central Division.....  | 17,627      | 31.97     | 3,225       | 5.85      | 19,134    | 34.70     | 20,238   | 36.71     |
| North Central Division.....  | 58,880      | 30.21     | 6,652       | 3.41      | 61,796    | 31.70     | 58,499   | 30.01     |
| Western Division.....        | 4,624       | 18.62     | 764         | 3.08      | 10,164    | 40.92     | 11,571   | 46.58     |
| North Atlantic Division:     |             |           |             |           |           |           |          |           |
| Maine.....                   | 1,503       | 14.75     | 334         | 3.28      | 2,495     | 24.48     | 3,048    | 29.91     |
| New Hampshire.....           | 891         | 15.11     | 130         | 2.45      | 1,378     | 25.99     | 1,653    | 31.18     |
| Vermont.....                 | 810         | 16.02     | 152         | 3.01      | 1,229     | 24.30     | 1,292    | 25.55     |
| Massachusetts.....           | 5,959       | 17.95     | 386         | 1.16      | 11,138    | 33.56     | 14,439   | 44.71     |
| Rhode Island.....            | 225         | 7.29      | 145         | 4.70      | 752       | 24.37     | 1,564    | 50.68     |
| Connecticut.....             | 1,734       | 20.02     | 167         | 1.93      | 2,562     | 29.58     | 3,238    | 37.39     |
| New York.....                | 11,801      | 27.02     | 1,064       | 2.44      | 9,275     | 21.23     | 12,891   | 29.51     |
| New Jersey.....              | 3,760       | 33.62     | 243         | 2.17      | 3,828     | 34.23     | 3,823    | 34.18     |
| Pennsylvania.....            | 12,656      | 39.88     | 1,133       | 3.57      | 9,264     | 29.19     | 11,658   | 36.74     |
| South Atlantic Division:     |             |           |             |           |           |           |          |           |
| Delaware.....                | 531         | 41.84     | 5           | 0.39      | 414       | 32.62     | 522      | 41.13     |
| Maryland.....                | 1,637       | 30.82     | 268         | 5.05      | 1,494     | 28.13     | 3,271    | 61.59     |
| District of Columbia.....    | 128         | 4.20      | 28          | 0.92      | 1,088     | 35.74     | 1,867    | 61.33     |
| Virginia.....                | 2,041       | 27.32     | 172         | 2.30      | 2,734     | 36.59     | 3,396    | 45.45     |
| West Virginia.....           | 532         | 31.46     | 72          | 4.26      | 676       | 39.88     | 748      | 44.23     |
| North Carolina.....          | 1,896       | 26.24     | 181         | 2.50      | 1,736     | 24.02     | 2,446    | 33.85     |
| South Carolina.....          | 882         | 24.22     | 144         | 3.95      | 1,163     | 31.93     | 1,498    | 41.13     |
| Georgia.....                 | 2,548       | 24.64     | 313         | 3.03      | 3,784     | 36.59     | 3,605    | 34.85     |
| Florida.....                 | 729         | 50.21     | 99          | 6.82      | 568       | 39.12     | 669      | 46.07     |
| South Central Division:      |             |           |             |           |           |           |          |           |
| Kentucky.....                | 2,325       | 25.66     | 507         | 5.59      | 3,431     | 37.86     | 3,508    | 38.71     |
| Tennessee.....               | 2,463       | 21.68     | 311         | 2.74      | 3,555     | 31.29     | 3,634    | 31.99     |
| Alabama.....                 | 2,234       | 37.88     | 520         | 8.82      | 2,385     | 40.44     | 2,081    | 35.29     |
| Mississippi.....             | 2,526       | 38.17     | 232         | 3.51      | 2,002     | 30.26     | 2,225    | 33.63     |
| Louisiana.....               | 795         | 26.89     | 164         | 5.55      | 1,336     | 45.18     | 1,731    | 58.54     |
| Texas.....                   | 5,193       | 36.13     | 1,089       | 7.58      | 4,744     | 33.01     | 5,280    | 36.74     |
| Arkansas.....                | 1,834       | 43.89     | 347         | 8.08      | 1,474     | 34.33     | 1,542    | 35.92     |
| Oklahoma.....                | 68          | 32.38     | 44          | 20.95     | 81        | 38.57     | 67       | 31.90     |
| Indian Territory.....        | 139         | 37.87     | 11          | 3.60      | 126       | 34.33     | 170      | 46.32     |
| North Central Division:      |             |           |             |           |           |           |          |           |
| Ohio.....                    | 12,629      | 36.04     | 634         | 1.81      | 10,487    | 29.92     | 10,305   | 29.41     |
| Indiana.....                 | 4,572       | 25.19     | 860         | 4.74      | 7,288     | 40.21     | 5,606    | 30.89     |
| Illinois.....                | 7,010       | 22.67     | 531         | 1.72      | 10,368    | 33.53     | 9,921    | 32.08     |
| Michigan.....                | 6,171       | 27.67     | 807         | 3.62      | 5,835     | 26.16     | 6,225    | 27.91     |
| Wisconsin.....               | 3,865       | 26.39     | 1,009       | 6.89      | 2,892     | 19.74     | 3,834    | 26.17     |
| Minnesota.....               | 3,314       | 30.40     | 84          | 0.77      | 2,562     | 23.50     | 3,291    | 30.19     |
| Iowa.....                    | 7,266       | 31.88     | 566         | 2.48      | 7,410     | 32.51     | 6,303    | 27.66     |
| Missouri.....                | 6,497       | 36.96     | 1,421       | 8.08      | 7,573     | 43.08     | 5,886    | 33.49     |
| North Dakota.....            | 347         | 37.76     | 46          | 5.01      | 214       | 23.29     | 392      | 42.66     |
| South Dakota.....            | 585         | 41.26     | 16          | 1.13      | 415       | 29.27     | 411      | 28.98     |
| Nebraska.....                | 3,619       | 36.30     | 83          | 0.83      | 3,676     | 36.87     | 3,109    | 31.18     |
| Kansas.....                  | 3,005       | 29.20     | 595         | 5.78      | 3,066     | 29.79     | 3,216    | 31.25     |
| Western Division:            |             |           |             |           |           |           |          |           |
| Montana.....                 | 277         | 25.89     | 7           | 0.65      | 389       | 36.36     | 303      | 28.32     |
| Wyoming.....                 | 102         | 30.72     | -----       | -----     | 135       | 40.66     | 114      | 34.34     |
| Colorado.....                | 597         | 14.95     | 184         | 4.61      | 1,262     | 31.61     | 2,018    | 50.54     |
| New Mexico.....              | 143         | 42.94     | -----       | -----     | 108       | 32.43     | 123      | 36.94     |
| Arizona.....                 | 46          | 27.38     | -----       | -----     | 23        | 13.69     | 83       | 49.40     |
| Utah.....                    | 186         | 8.44      | 235         | 10.66     | 539       | 27.17     | 376      | 17.05     |
| Nevada.....                  | 120         | 35.71     | -----       | -----     | 176       | 52.38     | 203      | 60.42     |
| Idaho.....                   | 147         | 44.01     | 19          | 5.69      | 81        | 24.25     | 120      | 35.93     |
| Washington.....              | 860         | 33.54     | 130         | 5.07      | 779       | 30.32     | 919      | 35.84     |
| Oregon.....                  | 396         | 18.93     | 37          | 1.77      | 610       | 29.16     | 812      | 38.81     |
| California.....              | 1,750       | 15.34     | 152         | 1.33      | 6,002     | 52.60     | 6,500    | 56.96     |

TABLE 30.—*Distribution of students receiving secondary instruction.*

| State or Territory.       | Total public and private secondary students. |         |         | In public institutions. |         |         |   |         |        | Secondary students in public normal schools. |         |        | Total public secondary students. |         |         |
|---------------------------|--|---------|---------|-------------------------|---------|---------|---|---------|--------|--|---------|--------|----------------------------------|---------|---------|
|                           | Male.  | Female. | Total.  | In public high schools. |         |         | In preparatory departments of public universities and colleges. |         |        | Male.  | Female. | Total. | Male.                            | Female. | Total.  |
|                           |  |         |         | Male.                   | Female. | Total.  | Male.   | Female. | Total. |  |         |        |                                  |         |         |
| United States.....        | 243,151                                      | 296,561 | 539,712 | 144,077                 | 206,022 | 350,099 | 4,327   | 1,697   | 6,024  | 1,228  | 4,019   | 5,247  | 149,692                          | 211,738 | 361,430 |
| North Atlantic Division:  |  |         |         |                         |         |         |   |         |        |  |         |        |                                  |         |         |
| Maine.....                | 4,568  | 5,845   | 10,413  | 2,919                   | 3,950   | 6,869   | 0   | 0       | 0      |  |         |        | 2,919                            | 3,950   | 6,869   |
| New Hampshire.....        | 2,662  | 2,797   | 5,459   | 1,430                   | 1,908   | 3,338   | 0   | 0       | 0      | 0  | 24      | 43     | 1,454                            | 1,951   | 3,405   |
| Vermont.....              | 2,662  | 2,689   | 5,351   | 1,231                   | 1,579   | 2,810   | 0   | 0       | 0      |  |         |        | 1,231                            | 1,579   | 2,810   |
| Massachusetts.....        | 15,159                                       | 18,530  | 33,689  | 11,784                  | 15,269  | 27,053  | 0   | 0       | 0      |  |         |        | 11,784                           | 15,269  | 27,053  |
| Rhode Island.....         | 1,378  | 4,784   | 6,162   | 955                     | 1,487   | 2,442   | 0   | 0       | 0      | 0  | 0       | 0      | 955                              | 1,487   | 2,442   |
| Connecticut.....          | 3,876  | 8,660   | 12,536  | 2,659                   | 3,126   | 5,785   | 0   | 0       | 0      |  |         |        | 2,659                            | 3,126   | 5,785   |
| New York.....             | 23,097                                       | 27,792  | 50,889  | 13,026                  | 18,863  | 32,489  | 691   | 0       | 691    | 93   | 1,956   | 2,049  | 14,410                           | 20,819  | 35,229  |
| New Jersey.....           | 5,845  | 5,894   | 11,739  | 2,856                   | 4,239   | 7,155   | 100   | 0       | 100    |  |         |        | 2,956                            | 4,239   | 7,235   |
| Pennsylvania.....         | 16,329                                       | 18,788  | 35,117  | 8,558                   | 13,092  | 21,650  | 73  | 13      | 86     | 150  | 187     | 337    | 8,781                            | 13,292  | 22,073  |
| South Atlantic Division:  |  |         |         |                         |         |         |   |         |        |  |         |        |                                  |         |         |
| Delaware.....             | 537  | 732     | 1,269   | 401                     | 577     | 978     | 0   | 0       | 0      | 0  | 0       | 0      | 401                              | 577     | 978     |
| Maryland.....             | 2,744  | 3,394   | 6,138   | 1,327                   | 1,978   | 3,305   | 32  | 0       | 32     |  |         |        | 1,359                            | 1,978   | 3,337   |
| District of Columbia..... | 1,582  | 1,881   | 3,463   | 862                     | 1,407   | 2,269   | 0   | 0       | 0      | 0  | 0       | 0      | 862                              | 1,407   | 2,269   |
| Virginia.....             | 4,152  | 4,555   | 8,707   | 1,594                   | 2,218   | 3,812   | 55  | 0       | 55     | 25   | 5       | 30     | 1,674                            | 2,223   | 3,897   |
| West Virginia.....        | 908  | 1,134   | 2,042   | 356                     | 612     | 968     | 120   | 72      | 192    | 72   | 97      | 169    | 548                              | 709     | 1,257   |
| North Carolina.....       | 4,591  | 3,952   | 8,543   | 431                     | 523     | 954     | 99  | 77      | 176    |  |         |        | 530                              | 600     | 1,130   |
| South Carolina.....       | 2,488  | 2,489   | 4,977   | 743                     | 917     | 1,660   | 225   | 0       | 225    |  |         |        | 968                              | 917     | 1,885   |
| Georgia.....              | 5,335  | 6,866   | 12,201  | 2,101                   | 3,455   | 5,556   | 70  | 63      | 133    | 0  | 59      | 59     | 2,171                            | 3,577   | 5,748   |
| Florida.....              | 913  | 1,125   | 2,038   | 412                     | 569     | 978     | 103   | 53      | 156    |  |         |        | 515                              | 619     | 1,134   |
| South Central Division:   |  |         |         |                         |         |         |   |         |        |  |         |        |                                  |         |         |
| Kentucky.....             | 4,505  | 6,186   | 10,691  | 1,766                   | 2,352   | 4,118   | 80  | 12      | 92     |  |         |        | 1,846                            | 2,364   | 4,210   |
| Tennessee.....            | 7,106  | 7,368   | 14,474  | 1,980                   | 2,777   | 4,757   |   |         |        |  |         |        | 1,989                            | 2,777   | 4,766   |
| Alabama.....              | 3,350  | 3,761   | 7,111   | 1,033                   | 1,500   | 2,533   | 19  | 0       | 19     | 133  | 187     | 290    | 1,185                            | 1,717   | 2,902   |
| Mississippi.....          | 3,702  | 4,155   | 7,857   | 1,438                   | 1,733   | 3,171   | 342   | 5       | 347    | 6  | 6       | 12     | 1,786                            | 1,744   | 3,530   |
| Louisiana.....            | 1,662  | 2,379   | 4,041   | 569                     | 849     | 1,418   | 91  | 0       | 91     | 0  | 0       | 0      | 660                              | 849     | 1,509   |
| Texas.....                | 7,075  | 9,016   | 16,091  | 3,736                   | 5,351   | 9,087   | 0   | 0       | 0      |  |         |        | 3,736                            | 5,351   | 9,087   |
| Arkansas.....             | 2,557  | 2,859   | 5,416   | 1,082                   | 1,495   | 2,577   | 267   | 136     | 403    |  |         |        | 1,349                            | 1,631   | 2,980   |
| Oklahoma.....             | 220  | 256     | 476     | 58                      | 93      | 151     | 141   | 125     | 266    |  |         |        | 199                              | 217     | 417     |
| Indian Territory.....     | 284  | 228     | 512     | 130                     | 53      | 183     | 0   | 0       | 0      |  |         |        | 130                              | 53      | 183     |
| North Central Division:   |  |         |         |                         |         |         |   |         |        |  |         |        |                                  |         |         |
| Ohio.....                 | 19,318                                       | 22,864  | 42,182  | 13,751                  | 18,846  | 32,597  | 212   | 64      | 276    | 45   | 77      | 122    | 14,008                           | 18,987  | 32,995  |

|                   |        |        |        |        |        |        |     |     |     |     |       |       |        |        |        |
|-------------------|--------|--------|--------|--------|--------|--------|-----|-----|-----|-----|-------|-------|--------|--------|--------|
| Indiana.....      | 9,243  | 12,106 | 21,349 | 6,878  | 9,694  | 16,512 | 0   | 0   | 0   | 18  | 20    | 38    | 6,896  | 9,654  | 16,550 |
| Illinois.....     | 15,681 | 20,779 | 36,460 | 10,187 | 16,892 | 26,989 | 116 | 31  | 147 | 112 | 75    | 187   | 10,415 | 16,908 | 27,823 |
| Michigan.....     | 10,363 | 14,651 | 24,354 | 8,765  | 12,471 | 21,236 | 0   | 0   | 0   | 0   | 7     | 11    | 8,769  | 12,478 | 21,547 |
| Wisconsin.....    | 7,319  | 8,441  | 15,760 | 5,348  | 7,354  | 13,072 | 0   | 0   | 0   | 47  | 47    | 94    | 5,385  | 7,371  | 13,166 |
| Minnesota.....    | 5,085  | 6,594  | 11,679 | 3,865  | 5,619  | 9,481  | 0   | 0   | 0   | 0   | 0     | 0     | 3,865  | 5,619  | 9,484  |
| Iowa.....         | 11,371 | 15,042 | 26,413 | 8,049  | 11,696 | 19,745 | 22  | 6   | 28  | 0   | 5     | 8     | 8,074  | 11,707 | 19,781 |
| Missouri.....     | 10,048 | 13,299 | 23,347 | 5,113  | 8,188  | 13,301 | 0   | 0   | 0   | 3   | 1,199 | 1,665 | 5,579  | 9,387  | 14,966 |
| North Dakota..... | 661    | 687    | 1,348  | 328    | 401    | 729    | 109 | 50  | 159 | 466 | 0     | 0     | 437    | 451    | 888    |
| South Dakota..... | 967    | 1,172  | 2,139  | 490    | 710    | 1,200  | 132 | 158 | 290 | 0   | 0     | 0     | 622    | 868    | 1,490  |
| Nebraska.....     | 5,172  | 6,676  | 11,848 | 3,738  | 5,500  | 9,238  | 294 | 185 | 419 | 0   | 0     | 0     | 3,972  | 5,685  | 9,657  |
| Kansas.....       | 5,342  | 6,834  | 12,176 | 3,529  | 5,526  | 9,055  | 0   | 0   | 0   | 25  | 50    | 75    | 3,554  | 5,576  | 9,130  |
| Western Division: |        |        |        |        |        |        |     |     |     |     |       |       |        |        |        |
| Montana.....      | 446    | 722    | 1,168  | 355    | 591    | 946    | 43  | 29  | 72  | 0   | 0     | 0     | 398    | 620    | 1,018  |
| Wyoming.....      | 181    | 297    | 408    | 108    | 152    | 280    | 36  | 37  | 73  | 0   | 0     | 0     | 144    | 189    | 333    |
| Colorado.....     | 1,951  | 2,653  | 4,604  | 1,472  | 2,210  | 3,682  | 125 | 129 | 254 | 1   | 2     | 3     | 1,508  | 2,341  | 3,939  |
| New Mexico.....   | 274    | 293    | 526    | 118    | 98     | 216    | 103 | 90  | 193 | 0   | 0     | 0     | 221    | 188    | 109    |
| Arizona.....      | 70     | 125    | 185    | 60     | 108    | 168    | 10  | 17  | 27  | 0   | 0     | 0     | 70     | 125    | 195    |
| Utah.....         | 1,623  | 1,677  | 3,300  | 188    | 323    | 533    | 325 | 217 | 542 | 0   | 0     | 0     | 513    | 542    | 1,035  |
| Nevada.....       | 110    | 226    | 336    | 110    | 212    | 322    | 0   | 0   | 0   | 0   | 0     | 0     | 110    | 212    | 322    |
| Idaho.....        | 249    | 307    | 556    | 98     | 157    | 255    | 117 | 74  | 191 | 4   | 27    | 31    | 219    | 258    | 477    |
| Washington.....   | 1,293  | 1,687  | 2,980  | 795    | 1,041  | 1,836  | 89  | 48  | 137 | 0   | 0     | 0     | 884    | 1,089  | 1,973  |
| Oregon.....       | 1,413  | 1,581  | 2,994  | 614    | 885    | 1,499  | 146 | 78  | 224 | 0   | 0     | 0     | 700    | 1,063  | 1,723  |
| California.....   | 5,938  | 7,038  | 12,976 | 3,872  | 5,237  | 9,109  | 0   | 0   | 0   | 0   | 0     | 0     | 3,872  | 5,237  | 9,109  |







TABLE 32.—Review of public high school statistics, 1890-1895.

## NUMBER OF SCHOOLS AND NUMBER OF INSTRUCTORS.

| State or Territory.         | 1890-91. |              | 1891-92. |              | *1892-93. |              | 1893-94. |              | 1894-95. |              |
|-----------------------------|----------|--------------|----------|--------------|-----------|--------------|----------|--------------|----------|--------------|
|                             | Schools. | Instructors. | Schools. | Instructors. | Schools.  | Instructors. | Schools. | Instructors. | Schools. | Instructors. |
| United States .....         | 2, 773   | 8, 270       | 3, 035   | 9, 564       | 2, 812    | 9, 489       | 3, 964   | 12, 120      | 4, 712   | 14, 122      |
| North Atlantic Division.... | 845      | 2, 901       | 900      | 3, 282       | 835       | 3, 234       | 1, 063   | 3, 899       | 1, 156   | 4, 372       |
| South Atlantic Division.... | 166      | 475          | 189      | 528          | 166       | 518          | 294      | 812          | 378      | 896          |
| South Central Division....  | 197      | 452          | 244      | 626          | 218       | 621          | 389      | 977          | 542      | 1, 258       |
| North Central Division....  | 1, 448   | 4, 075       | 1, 571   | 4, 714       | 1, 474    | 4, 684       | 2, 043   | 5, 849       | 2, 424   | 6, 844       |
| Western Division .....      | 117      | 367          | 131      | 414          | 119       | 432          | 175      | 583          | 212      | 752          |
| North Atlantic Division:    |          |              |          |              |           |              |          |              |          |              |
| Maine .....                 | 96       | 226          | 105      | 243          | 98        | 221          | 110      | 262          | 111      | 252          |
| New Hampshire .....         | 36       | 82           | 39       | 100          | 37        | 97           | 44       | 126          | 48       | 137          |
| Vermont .....               | 38       | 87           | 41       | 101          | 44        | 106          | 47       | 109          | 50       | 123          |
| Massachusetts .....         | 187      | 619          | 197      | 798          | 190       | 821          | 210      | 978          | 216      | 1, 055       |
| Rhode Island .....          | 10       | 58           | 11       | 67           | 10        | 65           | 13       | 85           | 14       | 100          |
| Connecticut .....           | 48       | 183          | 48       | 205          | 44        | 183          | 56       | 220          | 60       | 252          |
| New York .....              | 226      | 960          | 239      | 1, 036       | 216       | 1, 018       | 297      | 1, 161       | 332      | 1, 334       |
| New Jersey .....            | 43       | 169          | 46       | 190          | 42        | 186          | 63       | 246          | 69       | 291          |
| Pennsylvania .....          | 161      | 517          | 174      | 542          | 154       | 537          | 223      | 712          | 276      | 828          |
| South Atlantic Division:    |          |              |          |              |           |              |          |              |          |              |
| Delaware .....              | 9        | 26           | 10       | 31           | 10        | 29           | 12       | 35           | 13       | 35           |
| Maryland .....              | 31       | 57           | 33       | 62           | 31        | 79           | 45       | 142          | 46       | 137          |
| District of Columbia....    | 2        | 52           | 4        | 73           | 4         | 80           | 4        | 89           | 4        | 82           |
| Virginia .....              | 48       | 106          | 49       | 104          | 31        | 89           | 63       | 142          | 83       | 173          |
| West Virginia .....         | 4        | 25           | 4        | 21           | 3         | 10           | 16       | 31           | 24       | 44           |
| North Carolina .....        | 10       | 27           | 11       | 27           | 10        | 27           | 13       | 28           | 16       | 37           |
| South Carolina .....        | 13       | 39           | 14       | 41           | 13        | 41           | 36       | 94           | 50       | 91           |
| Georgia .....               | 29       | 91           | 43       | 114          | 48        | 124          | 88       | 210          | 118      | 251          |
| Florida .....               | 29       | 52           | 21       | 55           | 16        | 39           | 17       | 41           | 24       | 46           |
| South Central Division:     |          |              |          |              |           |              |          |              |          |              |
| Kentucky .....              | 38       | 75           | 44       | 114          | 35        | 94           | 42       | 136          | 62       | 179          |
| Tennessee .....             | 24       | 57           | 36       | 87           | 38        | 100          | 82       | 172          | 104      | 212          |
| Alabama .....               | 17       | 36           | 19       | 69           | 18        | 50           | 37       | 75           | 51       | 109          |
| Mississippi .....           | 14       | 31           | 25       | 57           | 32        | 82           | 67       | 161          | 87       | 164          |
| Louisiana .....             | 5        | 19           | 7        | 37           | 6         | 31           | 10       | 50           | 22       | 82           |
| Texas .....                 | 78       | 188          | 90       | 221          | 70        | 219          | 121      | 322          | 156      | 383          |
| Arkansas .....              | 21       | 46           | 22       | 47           | 18        | 42           | 25       | 52           | 52       | 106          |
| Oklahoma .....              |          |              |          |              |           |              | 3        | 5            | 3        | 8            |
| Indian Territory .....      |          |              | 1        | 3            | 1         | 3            | 2        | 4            | 5        | 15           |
| North Central Division:     |          |              |          |              |           |              |          |              |          |              |
| Ohio .....                  | 304      | 843          | 326      | 932          | 293       | 921          | 402      | 1, 040       | 474      | 1, 261       |
| Indiana .....               | 117      | 337          | 123      | 365          | 121       | 414          | 204      | 540          | 270      | 696          |
| Illinois .....              | 208      | 661          | 220      | 787          | 206       | 739          | 272      | 940          | 305      | 1, 029       |
| Michigan .....              | 153      | 462          | 177      | 546          | 169       | 599          | 239      | 774          | 271      | 808          |
| Wisconsin .....             | 132      | 322          | 139      | 367          | 134       | 346          | 170      | 425          | 182      | 494          |
| Minnesota .....             | 76       | 274          | 81       | 313          | 79        | 318          | 87       | 347          | 97       | 428          |
| Iowa .....                  | 180      | 496          | 200      | 582          | 189       | 580          | 256      | 707          | 298      | 812          |
| Missouri .....              | 73       | 222          | 81       | 261          | 77        | 284          | 120      | 393          | 158      | 490          |
| North Dakota .....          | 3        | 8            | 3        | 7            | 1         | 3            | 12       | 25           | 21       | 46           |
| South Dakota .....          | 10       | 20           | 10       | 23           | 8         | 24           | 19       | 35           | 29       | 61           |
| Nebraska .....              | 88       | 202          | 102      | 260          | 95        | 219          | 133      | 319          | 164      | 364          |
| Kansas .....                | 104      | 228          | 109      | 271          | 102       | 237          | 129      | 304          | 155      | 346          |
| Western Division:           |          |              |          |              |           |              |          |              |          |              |
| Montana .....               | 9        | 16           | 10       | 25           | 12        | 25           | 14       | 33           | 17       | 41           |
| Wyoming .....               | 2        | 5            | 2        | 5            | 2         | 5            | 2        | 5            | 5        | 13           |
| Colorado .....              | 25       | 91           | 26       | 100          | 23        | 104          | 34       | 135          | 44       | 176          |
| New Mexico .....            |          |              | 1        |              | 2         | 5            | 6        | 8            | 6        | 16           |
| Arizona .....               | 3        | 4            | 3        | 5            | 2         | 4            | 3        | 5            | 4        | 6            |
| Utah .....                  | 1        | 2            | 2        | 7            | 2         | 8            | 2        | 13           | 2        | 16           |
| Nevada .....                | 11       | 18           | 11       | 17           | 9         | 14           | 8        | 15           | 6        | 15           |
| Idaho .....                 | 5        | 8            | 6        | 11           | 5         | 8            | 5        | 9            | 6        | 13           |
| Washington .....            | 11       | 36           | 14       | 44           | 14        | 54           | 23       | 65           | 29       | 81           |
| Oregon .....                | 9        | 28           | 11       | 28           | 9         | 27           | 12       | 30           | 15       | 43           |
| California .....            | 41       | 166          | 45       | 172          | 39        | 178          | 66       | 265          | 78       | 332          |

\* Incomplete returns in 1893.

TABLE 33.—*Review of the public high school statistics, 1890-1895.*

## MALE AND FEMALE INSTRUCTORS.

| State or Territory.          | 1890-91. |         | 1891-92. |         | 1892-93. |         | 1893-94. |         | 1894-95. |         |
|------------------------------|----------|---------|----------|---------|----------|---------|----------|---------|----------|---------|
|                              | Male.    | Female. | Male.    | Female. | Male.    | Female. | Male.    | Female. | Male.    | Female. |
| United States.....           | 3, 745   | 4, 525  | 4, 133   | 5, 396  | 4, 129   | 5, 360  | 5, 738   | 6, 382  | 6, 787   | 7, 335  |
| North Atlantic Division..... | 1, 192   | 1, 709  | 1, 240   | 2, 010  | 1, 211   | 2, 023  | 1, 5-9   | 2, 310  | 1, 796   | 2, 606  |
| South Atlantic Division..... | 210      | 265     | 240      | 288     | 243      | 275     | 400      | 412     | 468      | 428     |
| South Central Division.....  | 234      | 218     | 314      | 312     | 301      | 320     | 525      | 452     | 704      | 554     |
| North Central Division.....  | 1, 918   | 2, 127  | 2, 152   | 2, 559  | 2, 178   | 2, 506  | 2, 921   | 2, 928  | 3, 456   | 3, 388  |
| Western Division.....        | 161      | 206     | 187      | 227     | 196      | 236     | 303      | 280     | 393      | 359     |
| North Atlantic Division:     |          |         |          |         |          |         |          |         |          |         |
| Maine.....                   | 106      | 120     | 116      | 127     | 114      | 107     | 130      | 132     | 128      | 124     |
| New Hampshire.....           | 34       | 48      | 42       | 58      | 42       | 55      | 55       | 71      | 55       | 82      |
| Vermont.....                 | 23       | 54      | 37       | 64      | 43       | 63      | 49       | 60      | 51       | 72      |
| Massachusetts.....           | 279      | 340     | 297      | 501     | 311      | 510     | 368      | 610     | 399      | 656     |
| Rhode Island.....            | 25       | 33      | 28       | 39      | 25       | 40      | 33       | 52      | 41       | 59      |
| Connecticut.....             | 69       | 114     | 78       | 127     | 76       | 107     | 99       | 121     | 106      | 146     |
| New York.....                | 355      | 605     | 336      | 668     | 312      | 706     | 469      | 752     | 449      | 885     |
| New Jersey.....              | 56       | 113     | 62       | 128     | 65       | 121     | 88       | 158     | 103      | 188     |
| Pennsylvania.....            | 235      | 282     | 244      | 298     | 223      | 314     | 358      | 354     | 434      | 394     |
| South Atlantic Division:     |          |         |          |         |          |         |          |         |          |         |
| Delaware.....                | 10       | 16      | 16       | 15      | 14       | 15      | 15       | 20      | 17       | 18      |
| Maryland.....                | 33       | 24      | 35       | 27      | 41       | 38      | 61       | 81      | 64       | 73      |
| District of Columbia.....    | 21       | 31      | 31       | 42      | 32       | 48      | 41       | 48      | 37       | 45      |
| Virginia.....                | 49       | 57      | 51       | 53      | 35       | 51      | 69       | 73      | 86       | 87      |
| West Virginia.....           | 3        | 22      | 1        | 20      | 3        | 7       | 19       | 12      | 29       | 15      |
| North Carolina.....          | 14       | 13      | 16       | 11      | 15       | 12      | 16       | 12      | 15       | 22      |
| South Carolina.....          | 15       | 24      | 17       | 24      | 16       | 25      | 46       | 48      | 56       | 35      |
| Georgia.....                 | 34       | 57      | 44       | 70      | 67       | 57      | 107      | 103     | 131      | 120     |
| Florida.....                 | 31       | 21      | 29       | 26      | 20       | 19      | 26       | 15      | 33       | 13      |
| South Central Division:      |          |         |          |         |          |         |          |         |          |         |
| Kentucky.....                | 42       | 33      | 55       | 59      | 50       | 44      | 68       | 68      | 90       | 89      |
| Tennessee.....               | 28       | 29      | 43       | 44      | 50       | 50      | 103      | 69      | 133      | 79      |
| Alabama.....                 | 18       | 18      | 21       | 39      | 21       | 29      | 39       | 36      | 57       | 52      |
| Mississippi.....             | 14       | 17      | 27       | 30      | 42       | 40      | 88       | 73      | 97       | 67      |
| Louisiana.....               | 8        | 11      | 15       | 22      | 14       | 17      | 18       | 32      | 36       | 46      |
| Texas.....                   | 101      | 87      | 125      | 96      | 100      | 119     | 174      | 148     | 213      | 170     |
| Arkansas.....                | 23       | 23      | 25       | 22      | 21       | 21      | 32       | 20      | 65       | 41      |
| Oklahoma.....                |          |         |          |         |          |         | 2        | 3       | 4        | 4       |
| Indian Territory.....        |          |         | 3        | 0       | 3        |         | 1        | 3       | 9        | 6       |
| North Central Division:      |          |         |          |         |          |         |          |         |          |         |
| Ohio.....                    | 410      | 433     | 439      | 493     | 426      | 495     | 587      | 453     | 688      | 573     |
| Indiana.....                 | 193      | 144     | 200      | 165     | 219      | 195     | 323      | 217     | 415      | 281     |
| Illinois.....                | 314      | 347     | 352      | 435     | 362      | 377     | 457      | 483     | 515      | 514     |
| Michigan.....                | 189      | 273     | 214      | 329     | 237      | 362     | 327      | 447     | 346      | 462     |
| Wisconsin.....               | 155      | 167     | 164      | 203     | 163      | 183     | 211      | 214     | 237      | 257     |
| Minnesota.....               | 106      | 168     | 117      | 196     | 121      | 197     | 131      | 216     | 161      | 267     |
| Iowa.....                    | 206      | 290     | 236      | 346     | 242      | 338     | 309      | 398     | 354      | 458     |
| Missouri.....                | 123      | 99      | 144      | 117     | 141      | 143     | 205      | 188     | 262      | 237     |
| North Dakota.....            | 3        | 5       | 3        | 4       | 1        | 2       | 15       | 10      | 20       | 26      |
| South Dakota.....            | 7        | 13      | 10       | 13      | 7        | 17      | 18       | 17      | 36       | 25      |
| Nebraska.....                | 105      | 97      | 127      | 133     | 117      | 102     | 160      | 159     | 290      | 164     |
| Kansas.....                  | 137      | 91      | 146      | 125     | 142      | 95      | 178      | 126     | 222      | 124     |
| Western Division:            |          |         |          |         |          |         |          |         |          |         |
| Montana.....                 | 8        | 8       | 8        | 17      | 10       | 15      | 15       | 18      | 19       | 22      |
| Wyoming.....                 | 2        | 3       | 2        | 3       | 2        | 3       | 2        | 3       | 4        | 9       |
| Colorado.....                | 41       | 50      | 43       | 57      | 48       | 56      | 68       | 67      | 92       | 84      |
| New Mexico.....              |          |         |          |         | 3        | 2       | 6        | 2       | 7        | 9       |
| Arizona.....                 | 3        | 1       | 3        | 2       | 3        | 1       | 5        | 0       | 6        | 0       |
| Utah.....                    | 1        | 1       | 4        | 3       | 4        | 4       | 7        | 6       | 12       | 4       |
| Nevada.....                  | 8        | 10      | 9        | 8       | 8        | 6       | 9        | 6       | 6        | 9       |
| Idaho.....                   | 5        | 3       | 7        | 4       | 5        | 3       | 5        | 4       | 6        | 7       |
| Washington.....              | 11       | 25      | 17       | 27      | 23       | 31      | 39       | 26      | 49       | 32      |
| Oregon.....                  | 12       | 9       | 15       | 13      | 13       | 14      | 15       | 15      | 23       | 20      |
| California.....              | 70       | 96      | 79       | 93      | 77       | 101     | 132      | 133     | 169      | 163     |



TABLE 34.—Review of public high school statistics, 1890-1895.

## SECONDARY STUDENTS AND ELEMENTARY PUPILS.

| State or Territory.       | 1890-91.             |                        | 1891-92.             |                       | 1892-93.             |                       | 1893-94.             |                       | 1894-95.             |                       |
|---------------------------|----------------------|------------------------|----------------------|-----------------------|----------------------|-----------------------|----------------------|-----------------------|----------------------|-----------------------|
|                           | Sec-<br>ond-<br>ary. | Ele-<br>men-<br>tary.* | Sec-<br>ond-<br>ary. | Ele-<br>men-<br>tary. | Sec-<br>ond-<br>ary. | Ele-<br>men-<br>tary. | Sec-<br>ond-<br>ary. | Ele-<br>men-<br>tary. | Sec-<br>ond-<br>ary. | Ele-<br>men-<br>tary. |
| United States.....        | 211,596              | .....                  | 239,556              | 326,836               | 232,951              | 436,855               | 289,274              | 583,329               | 350,099              | 1,264,464             |
| North Atlantic Division.. | 77,850               | .....                  | 85,628               | 70,161                | 79,898               | 99,265                | 94,287               | 129,995               | 109,591              | 291,820               |
| South Atlantic Division.. | 10,189               | .....                  | 12,556               | 15,317                | 11,587               | 23,052                | 17,737               | 32,762                | 20,480               | 63,339                |
| South Central Division..  | 10,441               | .....                  | 13,720               | 26,024                | 13,861               | 45,897                | 21,162               | 70,517                | 28,064               | 116,132               |
| North Central Division..  | 104,290              | .....                  | 117,261              | 193,968               | 115,806              | 245,392               | 141,338              | 318,248               | 173,158              | 728,008               |
| Western Division.....     | 8,835                | .....                  | 10,391               | 21,366                | 11,793               | 23,249                | 14,750               | 31,897                | 18,806               | 65,165                |
| North Atlantic Division:  |                      |                        |                      |                       |                      |                       |                      |                       |                      |                       |
| Maine.....                | 5,869                | .....                  | 6,656                | 1,016                 | 5,962                | 1,656                 | 6,281                | 2,175                 | 6,869                | 2,557                 |
| New Hampshire.....        | 2,254                | .....                  | 2,416                | 1,088                 | 2,412                | 644                   | 2,840                | 659                   | 3,338                | 4,473                 |
| Vermont.....              | 1,637                | .....                  | 2,179                | 2,925                 | 2,362                | 4,499                 | 2,514                | 4,563                 | 2,810                | 7,327                 |
| Massachusetts.....        | 19,467               | .....                  | 29,943               | 961                   | 21,109               | 1,225                 | 25,237               | 1,821                 | 27,053               | 31,264                |
| Rhode Island.....         | 1,525                | .....                  | 1,809                | 23                    | 1,675                | 31                    | 2,661                | 68                    | 2,442                | 183                   |
| Connecticut.....          | 4,670                | .....                  | 4,591                | 2,841                 | 4,186                | 3,013                 | 5,486                | 3,276                 | 5,785                | 8,233                 |
| New York.....             | 25,768               | .....                  | 26,629               | 36,220                | 24,326               | 52,629                | 26,113               | 68,893                | 32,489               | 110,614               |
| New Jersey.....           | 4,223                | .....                  | 6,317                | 7,818                 | 4,480                | 12,014                | 5,791                | 19,717                | 7,155                | 33,073                |
| Pennsylvania.....         | 12,417               | .....                  | 14,088               | 17,269                | 13,386               | 24,154                | 17,964               | 28,733                | 21,650               | 94,096                |
| South Atlantic Division:  |                      |                        |                      |                       |                      |                       |                      |                       |                      |                       |
| Delaware.....             | 581                  | .....                  | 877                  | 1,206                 | 595                  | 1,239                 | 859                  | 1,530                 | 978                  | 3,215                 |
| Maryland.....             | 1,255                | .....                  | 1,464                | 3,200                 | 2,055                | 5,544                 | 3,115                | 5,719                 | 3,305                | 6,343                 |
| District of Columbia..    | 1,365                | .....                  | 1,738                | 0                     | 1,817                | 0                     | 1,954                | 0                     | 2,269                | 0                     |
| Virginia.....             | 2,122                | .....                  | 2,150                | 2,560                 | 1,850                | 3,038                 | 2,989                | 6,319                 | 3,812                | 11,086                |
| West Virginia.....        | 482                  | .....                  | 474                  | 150                   | 264                  | 1,876                 | 625                  | 2,453                 | 968                  | 8,561                 |
| North Carolina.....       | 510                  | .....                  | 630                  | 1,577                 | 605                  | 2,941                 | 671                  | 3,199                 | 954                  | 3,631                 |
| South Carolina.....       | 669                  | .....                  | 1,486                | 693                   | 714                  | 1,538                 | 1,843                | 4,732                 | 1,600                | 6,448                 |
| Georgia.....              | 2,330                | .....                  | 2,830                | 4,002                 | 2,915                | 5,057                 | 5,007                | 6,981                 | 5,556                | 21,051                |
| Florida.....              | 866                  | .....                  | 907                  | 1,929                 | 772                  | 1,819                 | 674                  | 1,749                 | 978                  | 3,604                 |
| South Central Division:   |                      |                        |                      |                       |                      |                       |                      |                       |                      |                       |
| Kentucky.....             | 2,597                | .....                  | 2,718                | 4,908                 | 2,355                | 5,284                 | 3,323                | 6,574                 | 4,118                | 17,845                |
| Tennessee.....            | 1,013                | .....                  | 2,041                | 3,279                 | 2,576                | 6,056                 | 3,850                | 11,658                | 4,766                | 19,537                |
| Alabama.....              | 693                  | .....                  | 977                  | 1,493                 | 1,082                | 3,368                 | 1,416                | 4,590                 | 2,593                | 6,182                 |
| Mississippi.....          | 561                  | .....                  | 1,181                | 3,021                 | 1,436                | 5,726                 | 2,988                | 10,181                | 3,171                | 13,076                |
| Louisiana.....            | 778                  | .....                  | 999                  | 327                   | 591                  | 701                   | 880                  | 885                   | 1,418                | 2,604                 |
| Texas.....                | 3,693                | .....                  | 4,486                | 9,440                 | 4,768                | 17,928                | 7,231                | 24,831                | 9,087                | 37,554                |
| Arkansas.....             | 1,106                | .....                  | 1,264                | 3,466                 | 939                  | 6,744                 | 1,303                | 9,345                 | 2,577                | 13,140                |
| Oklahoma.....             | .....                | .....                  | .....                | .....                 | .....                | .....                 | 89                   | 2,147                 | 151                  | 844                   |
| Indian Territory.....     | .....                | .....                  | 54                   | 90                    | 54                   | 90                    | 52                   | 286                   | 183                  | 5,350                 |
| North Central Division:   |                      |                        |                      |                       |                      |                       |                      |                       |                      |                       |
| Ohio.....                 | 29,524               | .....                  | 22,425               | 27,441                | 21,412               | 37,378                | 26,079               | 49,401                | 32,597               | 119,917               |
| Indiana.....              | 8,560                | .....                  | 9,162                | 13,604                | 10,658               | 19,446                | 12,911               | 30,264                | 16,512               | 81,047                |
| Illinois.....             | 17,772               | .....                  | 19,810               | 18,668                | 19,062               | 21,428                | 23,610               | 29,197                | 26,989               | 93,656                |
| Michigan.....             | 12,141               | .....                  | 14,549               | 35,794                | 15,058               | 44,230                | 19,124               | 56,860                | 21,236               | 94,489                |
| Wisconsin.....            | 7,638                | .....                  | 9,003                | 8,608                 | 8,125                | 12,062                | 9,996                | 17,342                | 13,072               | 57,923                |
| Minnesota.....            | 5,791                | .....                  | 6,929                | 13,904                | 7,081                | 18,848                | 7,820                | 16,468                | 9,484                | 35,362                |
| Iowa.....                 | 12,783               | .....                  | 14,172               | 29,067                | 14,066               | 37,193                | 15,640               | 41,160                | 19,745               | 81,162                |
| Missouri.....             | 7,243                | .....                  | 7,846                | 11,068                | 8,325                | 19,808                | 10,517               | 31,865                | 13,301               | 59,804                |
| North Dakota.....         | 139                  | .....                  | 132                  | 1,080                 | 52                   | .....                 | 382                  | 613                   | 729                  | 5,023                 |
| South Dakota.....         | 361                  | .....                  | 464                  | 1,375                 | 352                  | 927                   | 728                  | 1,325                 | 1,200                | 6,897                 |
| Nebraska.....             | 4,976                | .....                  | 5,690                | 15,891                | 5,296                | 16,941                | 7,078                | 23,954                | 9,238                | 43,251                |
| Kansas.....               | 6,362                | .....                  | 6,999                | 18,068                | 6,319                | 17,131                | 7,453                | 19,769                | 9,055                | 49,477                |
| Western Division:         |                      |                        |                      |                       |                      |                       |                      |                       |                      |                       |
| Montana.....              | 305                  | .....                  | 479                  | 4,083                 | 502                  | 5,179                 | 671                  | 5,982                 | 946                  | 7,464                 |
| Wyoming.....              | 100                  | .....                  | 100                  | 0                     | 119                  | 1,357                 | 159                  | 1,024                 | 260                  | 1,822                 |
| Colorado.....             | 1,870                | .....                  | 1,877                | 2,738                 | 2,056                | 3,134                 | 2,842                | 4,053                 | 3,682                | 12,927                |
| New Mexico.....           | .....                | .....                  | 30                   | 2                     | 62                   | 90                    | 142                  | 548                   | 216                  | 1,457                 |
| Arizona.....              | 62                   | .....                  | 67                   | 260                   | 90                   | 260                   | 139                  | 195                   | 168                  | 1,012                 |
| Utah.....                 | 41                   | .....                  | 146                  | 0                     | 266                  | .....                 | 297                  | 0                     | 513                  | 3,366                 |
| Nevada.....               | 443                  | .....                  | 511                  | 962                   | 419                  | 932                   | 450                  | 1,400                 | 322                  | 1,917                 |
| Idaho.....                | 196                  | .....                  | 226                  | 671                   | 161                  | 1,961                 | 180                  | 1,891                 | 255                  | 2,631                 |
| Washington.....           | 693                  | .....                  | 1,065                | 2,831                 | 987                  | 3,129                 | 1,540                | 4,277                 | 1,836                | 9,887                 |
| Oregon.....               | 566                  | .....                  | 804                  | 1,675                 | 894                  | 1,597                 | 980                  | 3,721                 | 1,499                | 5,759                 |
| California.....           | 4,559                | .....                  | 5,086                | 8,144                 | 6,243                | 5,610                 | 7,350                | 7,906                 | 9,109                | 16,923                |

\* Elementary pupils not reported in 1891.

TABLE 35.—*Review of public high school statistics, 1890-1895.*

## SECONDARY STUDENTS, MALE AND FEMALE.

| State or Territory.          | 1890-91. |              | 1891-92. |              | 1892-93. |              | 1893-94. |              | 1894-95. |              |
|------------------------------|----------|--------------|----------|--------------|----------|--------------|----------|--------------|----------|--------------|
|                              | Male.    | Fe-<br>male. | Male.    | Fe-<br>male. | Male.    | Fe-<br>male. | Male.    | Fe-<br>male. | Male.    | Fe-<br>male. |
| United States.....           | 85,219   | 126,379      | 95,369   | 142,316      | 93,464   | 139,487      | 117,202  | 172,072      | 144,077  | 206,022      |
| North Atlantic Division..... | 32,881   | 44,969       | 35,178   | 49,496       | 33,476   | 46,422       | 38,786   | 55,501       | 46,018   | 63,573       |
| South Atlantic Division..... | 3,964    | 6,216        | 5,068    | 7,363        | 4,642    | 6,945        | 7,236    | 10,501       | 8,227    | 12,253       |
| South Central Division.....  | 4,205    | 6,236        | 5,743    | 7,831        | 5,773    | 8,088        | 8,845    | 12,327       | 11,801   | 16,263       |
| North Central Division.....  | 40,678   | 63,612       | 45,247   | 71,368       | 44,820   | 70,986       | 56,287   | 85,051       | 70,241   | 102,917      |
| Western Division.....        | 3,491    | 5,346        | 4,133    | 6,258        | 4,753    | 7,046        | 6,058    | 8,692        | 7,790    | 11,016       |
| North Atlantic Division:     |          |              |          |              |          |              |          |              |          |              |
| Maine.....                   | 2,552    | 3,317        | 2,974    | 3,587        | 2,510    | 3,452        | 2,673    | 3,608        | 2,919    | 3,950        |
| New Hampshire.....           | 981      | 1,273        | 1,010    | 1,406        | 1,014    | 1,398        | 1,200    | 1,640        | 1,430    | 1,908        |
| Vermont.....                 | 710      | 947          | 943      | 1,236        | 1,040    | 1,322        | 1,093    | 1,421        | 1,231    | 1,579        |
| Massachusetts.....           | 8,109    | 11,358       | 8,769    | 12,137       | 9,313    | 11,796       | 11,038   | 14,190       | 11,784   | 15,269       |
| Rhode Island.....            | 608      | 917          | 719      | 1,090        | 611      | 1,064        | 771      | 1,280        | 955      | 1,487        |
| Connecticut.....             | 1,942    | 2,728        | 1,872    | 2,649        | 1,781    | 2,405        | 2,511    | 2,975        | 2,659    | 3,126        |
| New York.....                | 11,926   | 13,842       | 12,257   | 14,372       | 10,845   | 13,481       | 10,567   | 15,546       | 13,628   | 18,863       |
| New Jersey.....              | 1,514    | 2,709        | 1,852    | 3,733        | 1,700    | 2,780        | 2,444    | 3,347        | 2,856    | 4,299        |
| Pennsylvania.....            | 4,535    | 7,878        | 4,822    | 9,266        | 4,662    | 8,724        | 6,489    | 11,475       | 8,558    | 13,092       |
| South Atlantic Division:     |          |              |          |              |          |              |          |              |          |              |
| Delaware.....                | 301      | 280          | 407      | 345          | 281      | 314          | 370      | 489          | 401      | 577          |
| Maryland.....                | 596      | 659          | 663      | 801          | 733      | 1,322        | 1,266    | 1,849        | 1,327    | 1,978        |
| District of Columbia.....    | 431      | 934          | 642      | 1,096        | 627      | 1,190        | 690      | 1,264        | 862      | 1,407        |
| Virginia.....                | 853      | 1,269        | 841      | 1,309        | 668      | 1,182        | 1,193    | 1,796        | 1,594    | 2,218        |
| West Virginia.....           | 184      | 298          | 182      | 292          | 97       | 167          | 226      | 399          | 356      | 612          |
| North Carolina.....          | 18       | 312          | 365      | 365          | 282      | 323          | 304      | 367          | 431      | 523          |
| South Carolina.....          | 173      | 516          | 553      | 933          | 191      | 523          | 800      | 1,043        | 743      | 917          |
| Georgia.....                 | 826      | 1,504        | 1,087    | 1,743        | 1,419    | 1,496        | 2,113    | 2,894        | 2,101    | 3,455        |
| Florida.....                 | 422      | 444          | 428      | 479          | 344      | 428          | 274      | 400          | 412      | 566          |
| South Central Division:      |          |              |          |              |          |              |          |              |          |              |
| Kentucky.....                | 1,057    | 1,540        | 1,128    | 1,590        | 945      | 1,410        | 1,372    | 1,951        | 1,766    | 2,352        |
| Tennessee.....               | 401      | 612          | 810      | 1,231        | 1,070    | 1,596        | 1,594    | 2,351        | 1,989    | 2,777        |
| Alabama.....                 | 305      | 388          | 456      | 521          | 377      | 705          | 537      | 969          | 1,033    | 1,560        |
| Mississippi.....             | 267      | 294          | 555      | 626          | 636      | 800          | 1,416    | 1,572        | 1,428    | 1,733        |
| Louisiana.....               | 267      | 511          | 406      | 593          | 332      | 259          | 302      | 578          | 569      | 849          |
| Texas.....                   | 1,436    | 2,257        | 1,772    | 2,568        | 1,950    | 2,818        | 2,999    | 4,232        | 3,736    | 5,351        |
| Arkansas.....                | 472      | 634          | 562      | 702          | 409      | 590          | 561      | 742          | 1,082    | 1,495        |
| Oklahoma.....                |          |              |          |              |          |              | 31       | 58           | 58       | 93           |
| Indian Territory.....        |          |              | 54       | 0            | 54       |              | 18       | 34           | 130      | 53           |
| North Central Division:      |          |              |          |              |          |              |          |              |          |              |
| Ohio.....                    | 8,291    | 12,233       | 8,979    | 13,446       | 8,734    | 12,678       | 10,906   | 15,173       | 13,751   | 18,846       |
| Indiana.....                 | 3,351    | 5,209        | 3,592    | 5,570        | 4,275    | 6,383        | 5,296    | 7,615        | 6,878    | 9,634        |
| Illinois.....                | 6,199    | 11,573       | 7,044    | 12,796       | 6,606    | 12,456       | 8,517    | 15,093       | 10,187   | 16,802       |
| Michigan.....                | 5,063    | 7,078        | 5,696    | 8,569        | 6,082    | 8,976        | 7,828    | 11,296       | 8,765    | 12,471       |
| Wisconsin.....               | 3,158    | 4,480        | 3,747    | 5,256        | 3,318    | 4,807        | 4,200    | 5,766        | 5,548    | 7,524        |
| Minnesota.....               | 2,298    | 3,493        | 2,649    | 4,220        | 2,805    | 4,276        | 3,153    | 4,667        | 3,865    | 5,619        |
| Iowa.....                    | 5,020    | 7,764        | 5,411    | 8,411        | 5,402    | 8,064        | 6,292    | 9,348        | 8,049    | 11,696       |
| Missouri.....                | 2,594    | 4,649        | 2,854    | 5,042        | 2,909    | 5,416        | 3,889    | 6,631        | 5,113    | 8,188        |
| North Dakota.....            | 58       | 81           | 58       | 74           | 24       | 28           | 162      | 220          | 328      | 401          |
| South Dakota.....            | 136      | 225          | 171      | 293          | 131      | 221          | 303      | 425          | 490      | 710          |
| Nebraska.....                | 2,001    | 2,975        | 2,313    | 3,458        | 2,113    | 3,183        | 2,848    | 4,250        | 3,738    | 5,500        |
| Kansas.....                  | 2,509    | 3,853        | 2,733    | 4,233        | 2,421    | 3,898        | 2,866    | 4,587        | 3,529    | 5,526        |
| Western Division:            |          |              |          |              |          |              |          |              |          |              |
| Montana.....                 | 106      | 199          | 191      | 288          | 218      | 284          | 275      | 396          | 355      | 595          |
| Wyoming.....                 | 41       | 59           | 41       | 59           | 63       | 56           | 79       | 80           | 108      | 152          |
| Colorado.....                | 746      | 1,124        | 737      | 1,140        | 795      | 1,261        | 1,156    | 1,686        | 1,472    | 2,210        |
| New Mexico.....              |          |              | 14       | 16           | 43       | 19           | 71       | 71           | 118      | 98           |
| Arizona.....                 | 19       | 43           | 23       | 44           | 36       | 54           | 50       | 89           | 60       | 108          |
| Utah.....                    | 14       | 27           | 57       | 89           | 100      | 166          | 112      | 185          | 188      | 325          |
| Nevada.....                  | 154      | 289          | 183      | 328          | 159      | 260          | 167      | 283          | 110      | 212          |
| Idaho.....                   | 102      | 94           | 113      | 113          | 70       | 91           | 77       | 103          | 98       | 157          |
| Washington.....              | 291      | 402          | 427      | 638          | 418      | 569          | 638      | 902          | 795      | 1,041        |
| Oregon.....                  | 206      | 360          | 314      | 490          | 339      | 555          | 381      | 599          | 614      | 885          |
| California.....              | 1,812    | 2,747        | 2,033    | 3,053        | 2,512    | 3,731        | 3,052    | 4,298        | 3,872    | 5,237        |

TABLE 36.—Review of public high school statistics, 1891-1895.

## ELEMENTARY PUPILS, MALE AND FEMALE.

| State or Territory.        | 1891-92. |         | 1892-93. |         | 1893-94. |         | 1894-95. |         |
|----------------------------|----------|---------|----------|---------|----------|---------|----------|---------|
|                            | Male.    | Female. | Male.    | Female. | Male.    | Female. | Male.    | Female. |
| United States.....         | 149,209  | 160,505 | 209,621  | 227,234 | 282,702  | 300,627 | 615,365  | 649,099 |
| North Atlantic Division... | 30,328   | 33,465  | 47,453   | 51,812  | 62,678   | 67,227  | 140,779  | 151,041 |
| South Atlantic Division... | 7,157    | 8,294   | 11,056   | 11,996  | 15,788   | 16,974  | 30,618   | 32,721  |
| South Central Division...  | 12,417   | 13,250  | 21,584   | 24,313  | 33,892   | 36,624  | 56,408   | 59,724  |
| North Central Division...  | 89,658   | 95,045  | 118,246  | 127,146 | 154,547  | 163,701 | 355,319  | 372,689 |
| Western Division.....      | 9,649    | 10,451  | 11,282   | 11,967  | 15,796   | 16,101  | 32,241   | 32,924  |
| North Atlantic Division:   |          |         |          |         |          |         |          |         |
| Maine.....                 | 341      | 400     | 775      | 881     | 962      | 1,213   | 1,254    | 1,303   |
| New Hampshire.....         | 477      | 611     | 294      | 350     | 334      | 325     | 2,154    | 2,319   |
| Vermont.....               | 1,372    | 1,473   | 2,171    | 2,328   | 2,184    | 2,379   | 3,468    | 3,859   |
| Massachusetts.....         | 424      | 537     | 431      | 794     | 794      | 1,027   | 14,115   | 17,159  |
| Rhode Island.....          | 11       | 12      | 15       | 16      | 41       | 27      | 85       | 98      |
| Connecticut.....           | 736      | 922     | 1,455    | 1,558   | 1,618    | 1,658   | 4,048    | 4,185   |
| New York.....              | 16,499   | 18,290  | 25,180   | 26,849  | 33,060   | 35,833  | 53,778   | 56,846  |
| New Jersey.....            | 2,517    | 2,627   | 5,881    | 6,133   | 9,793    | 9,924   | 16,293   | 16,780  |
| Pennsylvania.....          | 7,951    | 8,593   | 11,251   | 12,903  | 13,892   | 14,841  | 45,594   | 48,502  |
| South Atlantic Division:   |          |         |          |         |          |         |          |         |
| Delaware.....              | 564      | 642     | 640      | 599     | 839      | 691     | 1,579    | 1,636   |
| Maryland.....              | 1,387    | 1,813   | 2,681    | 2,863   | 2,472    | 3,327   | 2,852    | 3,491   |
| District of Columbia.....  | 0        | 0       | 0        | 0       | 0        | 0       | 0        | 0       |
| Virginia.....              | 1,275    | 1,285   | 1,449    | 1,589   | 3,141    | 3,178   | 5,478    | 5,608   |
| West Virginia.....         | 51       | 99      | 908      | 968     | 1,220    | 1,233   | 4,191    | 4,370   |
| North Carolina.....        | 714      | 863     | 1,365    | 1,576   | 1,530    | 1,669   | 1,688    | 1,943   |
| South Carolina.....        | 335      | 358     | 734      | 804     | 2,269    | 2,463   | 3,122    | 3,326   |
| Georgia.....               | 1,912    | 2,024   | 2,432    | 2,625   | 3,460    | 3,521   | 10,215   | 10,336  |
| Florida.....               | 919      | 1,210   | 847      | 972     | 857      | 832     | 1,493    | 1,511   |
| South Central Division:    |          |         |          |         |          |         |          |         |
| Kentucky.....              | 2,431    | 2,477   | 2,574    | 2,710   | 3,213    | 3,361   | 8,733    | 9,112   |
| Tennessee.....             | 1,438    | 1,841   | 2,641    | 5,495   | 6,163    | 9,678   | 9,859    | 9,859   |
| Alabama.....               | 778      | 715     | 1,600    | 1,768   | 2,288    | 2,302   | 3,179    | 3,033   |
| Mississippi.....           | 1,504    | 1,317   | 2,858    | 2,868   | 5,022    | 5,159   | 6,344    | 6,732   |
| Louisiana.....             | 149      | 178     | 323      | 378     | 434      | 451     | 1,183    | 1,421   |
| Texas.....                 | 4,396    | 4,887   | 8,299    | 9,629   | 11,872   | 12,979  | 17,944   | 19,610  |
| Arkansas.....              | 1,631    | 1,835   | 3,199    | 3,545   | 4,384    | 4,961   | 6,323    | 6,817   |
| Oklahoma.....              |          |         |          |         | 1,133    | 1,014   | 407      | 437     |
| Indian Territory.....      | 90       | 0       | 90       |         | 52       | 234     | 2,617    | 2,733   |
| North Central Division:    |          |         |          |         |          |         |          |         |
| Ohio.....                  | 13,529   | 13,842  | 18,384   | 18,994  | 24,591   | 24,810  | 59,966   | 59,951  |
| Indiana.....               | 6,407    | 6,738   | 9,402    | 10,044  | 14,423   | 15,841  | 39,506   | 41,541  |
| Illinois.....              | 8,672    | 9,119   | 10,221   | 11,207  | 14,190   | 15,007  | 45,385   | 48,271  |
| Michigan.....              | 16,894   | 17,554  | 21,717   | 22,513  | 27,868   | 28,992  | 46,105   | 48,384  |
| Wisconsin.....             | 40,051   | 4,212   | 5,845    | 6,217   | 8,492    | 8,850   | 28,278   | 29,645  |
| Minnesota.....             | 5,856    | 6,294   | 8,887    | 9,971   | 8,017    | 8,451   | 10,963   | 18,339  |
| Iowa.....                  | 11,663   | 13,129  | 17,482   | 19,711  | 19,522   | 21,638  | 39,352   | 41,810  |
| Missouri.....              | 5,338    | 5,730   | 9,547    | 10,261  | 15,545   | 16,320  | 28,666   | 31,193  |
| North Dakota.....          | 532      | 548     |          |         | 317      | 326     | 2,473    | 2,550   |
| South Dakota.....          | 425      | 447     | 427      | 500     | 639      | 686     | 3,279    | 3,618   |
| Nebraska.....              | 7,632    | 8,023   | 8,224    | 8,717   | 11,530   | 12,424  | 21,362   | 21,889  |
| Kansas.....                | 8,659    | 9,409   | 8,120    | 9,011   | 9,413    | 10,356  | 23,984   | 25,493  |
| Western Division:          |          |         |          |         |          |         |          |         |
| Montana.....               | 1,843    | 2,240   | 2,354    | 2,825   | 2,869    | 3,113   | 3,621    | 3,843   |
| Wyoming.....               | 0        | 0       | 688      | 669     | 502      | 522     | 923      | 899     |
| Colorado.....              | 1,305    | 1,433   | 1,515    | 1,619   | 2,433    | 2,520   | 6,291    | 6,636   |
| New Mexico.....            | 0        | 2       | 90       | 0       | 317      | 231     | 797      | 660     |
| Arizona.....               | 132      | 128     | 132      | 128     | 90       | 105     | 512      | 500     |
| Utah.....                  | 0        | 0       |          |         | 0        | 0       | 1,547    | 1,819   |
| Nevada.....                | 468      | 494     | 433      | 490     | 682      | 718     | 968      | 949     |
| Idaho.....                 | 377      | 294     | 1,071    | 890     | 559      | 932     | 1,348    | 1,283   |
| Washington.....            | 1,347    | 1,484   | 1,503    | 1,626   | 2,159    | 2,118   | 4,957    | 4,930   |
| Oregon.....                | 749      | 926     | 732      | 865     | 1,760    | 1,952   | 2,751    | 3,008   |
| California.....            | 3,428    | 3,450   | 2,764    | 2,846   | 4,016    | 3,890   | 8,526    | 8,397   |



TABLE 37.—*Review of public high school statistics, 1890-1895.*

## COLORED SECONDARY STUDENTS, MALE AND FEMALE.

| State or Territory.         | 1890-91. |         | 1891-92. |         | * 1892-93. |         | 1893-94. |         | 1894-95. |         |
|-----------------------------|----------|---------|----------|---------|------------|---------|----------|---------|----------|---------|
|                             | Male.    | Female. | Male.    | Female. | Male.      | Female. | Male.    | Female. | Male.    | Female. |
| United States.....          | 1,641    | 2,539   | 1,560    | 2,422   | 1,155      | 2,071   | 1,557    | 2,640   | 1,756    | 2,866   |
| North Atlantic Division.... | 333      | 487     | 271      | 427     | 151        | 263     | 303      | 471     | 317      | 478     |
| South Atlantic Division.... | 144      | 390     | 401      | 643     | 242        | 486     | 333      | 658     | 344      | 676     |
| South Central Division....  | 145      | 275     | 170      | 333     | 206        | 332     | 329      | 512     | 264      | 451     |
| North Central Division....  | 957      | 1,328   | 695      | 986     | 541        | 969     | 579      | 975     | 816      | 1,230   |
| Western Division.....       | 62       | 59      | 23       | 33      | 15         | 22      | 13       | 27      | 15       | 31      |
| North Atlantic Division:    |          |         |          |         |            |         |          |         |          |         |
| Maine.....                  | 2        | 3       | 1        | 1       | 2          | 3       | 1        | 5       | 5        | 10      |
| New Hampshire.....          |          |         | 0        | 1       | 1          | 1       | 2        | 2       | 1        | 1       |
| Vermont.....                | 6        | 2       | 1        | 1       | 2          | 4       | 3        | 4       | 2        | 1       |
| Massachusetts.....          | 22       | 57      | 25       | 64      | 49         | 66      | 62       | 72      | 60       | 86      |
| Rhode Island.....           | 4        | 6       | 3        | 4       | 5          | 5       | 6        | 4       | 7        | 5       |
| Connecticut.....            | 13       | 23      | 5        | 16      | 2          | 10      | 7        | 21      | 11       | 21      |
| New York.....               | 159      | 227     | 146      | 221     | 38         | 52      | 96       | 146     | 44       | 81      |
| New Jersey.....             | 19       | 22      | 15       | 22      | 12         | 34      | 64       | 90      | 66       | 81      |
| Pennsylvania.....           | 108      | 147     | 75       | 97      | 40         | 88      | 62       | 127     | 121      | 192     |
| South Atlantic Division:    |          |         |          |         |            |         |          |         |          |         |
| Delaware.....               |          |         | 0        | 0       | 0          | 0       | 0        | 0       | 0        | 0       |
| Maryland.....               |          |         | 90       | 95      | 90         | 95      | 29       | 75      | 0        | 0       |
| District of Columbia....    | 70       | 289     | 90       | 260     | 109        | 300     | 140      | 329     | 197      | 421     |
| Virginia.....               | 14       | 48      | 11       | 45      | 13         | 45      | 49       | 90      | 49       | 81      |
| West Virginia.....          | 12       | 8       | 12       | 8       | 2          | 1       | 0        | 0       | 13       | 30      |
| North Carolina.....         | 30       | 40      | 30       | 40      | 2          | 10      | 5        | 9       | 5        | 9       |
| South Carolina.....         | 10       | 12      | 156      | 177     | 0          | 0       | 27       | 27      | 16       | 20      |
| Georgia.....                |          |         | 4        | 10      | 18         | 27      | 83       | 124     | 64       | 115     |
| Florida.....                | 8        | 2       | 8        | 8       | 8          | 8       | 0        | 0       | 0        | 0       |
| South Central Division:     |          |         |          |         |            |         |          |         |          |         |
| Kentucky.....               | 41       | 114     | 38       | 129     | 35         | 108     | 60       | 142     | 74       | 172     |
| Tennessee.....              |          |         | 17       | 38      | 32         | 32      | 70       | 125     | 88       | 160     |
| Alabama.....                |          |         | 0        | 0       | 19         | 45      | 0        | 0       | 0        | 0       |
| Mississippi.....            |          |         | 6        | 19      | 41         | 44      | 113      | 96      | 0        | 0       |
| Louisiana.....              |          |         | 0        | 0       | 0          | 0       | 0        | 0       | 0        | 0       |
| Texas.....                  | 89       | 120     | 86       | 103     | 49         | 50      | 69       | 104     | 27       | 48      |
| Arkansas.....               | 15       | 41      | 23       | 44      | 30         | 53      | 17       | 45      | 27       | 57      |
| Oklahoma.....               |          |         |          |         |            |         | 0        | 0       | 1        | 1       |
| Indian Territory.....       |          |         | 0        | 0       |            |         |          |         | 47       | 13      |
| North Central Division:     |          |         |          |         |            |         |          |         |          |         |
| Ohio.....                   | 265      | 343     | 196      | 273     | 148        | 240     | 161      | 231     | 216      | 304     |
| Indiana.....                | 121      | 189     | 161      | 215     | 73         | 119     | 107      | 162     | 101      | 145     |
| Illinois.....               | 108      | 167     | 59       | 97      | 90         | 159     | 72       | 149     | 82       | 157     |
| Michigan.....               | 54       | 70      | 43       | 49      | 26         | 48      | 32       | 59      | 60       | 108     |
| Wisconsin.....              | 9        | 9       | 4        | 2       | 2          | 3       | 42       | 48      | 14       | 9       |
| Minnesota.....              | 10       | 18      | 6        | 7       | 4          | 12      | 5        | 10      | 15       | 23      |
| Iowa.....                   | 73       | 98      | 38       | 59      | 42         | 53      | 17       | 41      | 25       | 42      |
| Missouri.....               | 133      | 221     | 71       | 126     | 53         | 144     | 65       | 115     | 190      | 244     |
| North Dakota.....           |          |         | 0        | 0       |            |         | 1        | 1       | 2        | 1       |
| South Dakota.....           | 3        | 3       | 0        | 0       | 0          | 2       | 0        | 1       | 0        | 1       |
| Nebraska.....               | 18       | 32      | 27       | 44      | 11         | 17      | 8        | 13      | 14       | 20      |
| Kansas.....                 | 163      | 178     | 90       | 114     | 92         | 172     | 69       | 145     | 97       | 176     |
| Western Division:           |          |         |          |         |            |         |          |         |          |         |
| Montana.....                |          |         | 3        | 2       | 1          | 0       | 5        | 4       | 2        | 2       |
| Wyoming.....                | 6        | 10      | 6        | 10      | 0          | 0       | 0        | 0       | 0        | 0       |
| Colorado.....               | 22       | 10      | 3        | 8       | 2          | 7       | 3        | 14      | 6        | 16      |
| New Mexico.....             |          |         | 0        | 0       | 0          | 0       | 2        | 1       | 1        | 1       |
| Arizona.....                |          |         | 0        | 0       | 0          | 0       | 0        | 0       | 0        | 0       |
| Utah.....                   |          |         | 0        | 0       |            |         | 0        | 0       | 0        | 0       |
| Nevada.....                 |          | 1       | 1        | 0       | 0          | 0       | 0        | 0       | 0        | 0       |
| Idaho.....                  | 5        | 3       | 5        | 4       | 2          | 2       | 0        | 1       | 0        | 3       |
| Washington.....             |          |         | 0        | 0       | 1          | 1       | 0        | 0       | 1        | 1       |
| Oregon.....                 |          | 1       | 0        | 0       | 1          | 0       | 1        | 0       | 1        | 0       |
| California.....             | 29       | 34      | 5        | 9       | 8          | 12      | 2        | 7       | 4        | 8       |

\* Incomplete returns in 1893.



TABLE 38.—*Review of public high school statistics, 1890-1895.*

## CLASSICAL AND SCIENTIFIC COLLEGE PREPARATORY STUDENTS.

| State or Territory.         | 1890-91.        |                  | 1891-92.        |                  | 1892-93.        |                  | 1893-94.        |                  | 1894-95.        |                  |
|-----------------------------|-----------------|------------------|-----------------|------------------|-----------------|------------------|-----------------|------------------|-----------------|------------------|
|                             | Clas-<br>sical. | Scien-<br>tific. | Clas-<br>sical. | Scien-<br>tific. | Clas-<br>sical. | Scien-<br>tific. | Clas-<br>sical. | Scien-<br>tific. | Clas-<br>sical. | Scien-<br>tific. |
| United States.....          | 12, 788         | 12, 270          | 15, 233         | 16, 532          | 17, 572         | 16, 563          | 22, 774         | 18, 606          | 26, 370         | 21, 776          |
| North Atlantic Division.... | 5, 601          | 3, 363           | 6, 850          | 4, 482           | 7, 540          | 4, 262           | 9, 030          | 5, 405           | 9, 949          | 6, 298           |
| South Atlantic Division.... | 886             | 283              | 991             | 340              | 1, 169          | 334              | 2, 184          | 613              | 2, 188          | 557              |
| South Central Division....  | 999             | 515              | 1, 324          | 683              | 1, 732          | 1, 128           | 3, 039          | 1, 830           | 3, 411          | 2, 050           |
| North Central Division....  | 4, 407          | 7, 095           | 5, 501          | 9, 959           | 6, 465          | 9, 514           | 7, 575          | 9, 363           | 9, 639          | 10, 799          |
| Western Division.....       | 295             | 984              | 567             | 1, 068           | 666             | 1, 315           | 946             | 1, 395           | 1, 183          | 2, 072           |
| North Atlantic Division:    |                 |                  |                 |                  |                 |                  |                 |                  |                 |                  |
| Maine.....                  | 588             | 240              | 726             | 192              | 898             | 151              | 1, 019          | 266              | 877             | 245              |
| New Hampshire.....          | 194             | 128              | 233             | 159              | 276             | 128              | 296             | 194              | 291             | 269              |
| Vermont.....                | 144             | 205              | 211             | 299              | 240             | 231              | 257             | 390              | 262             | 364              |
| Massachusetts.....          | 1, 961          | 594              | 2, 824          | 832              | 2, 694          | 888              | 3, 763          | 1, 173           | 4, 345          | 1, 306           |
| Rhode Island.....           | 237             | 22               | 273             | 33               | 415             | 41               | 409             | 124              | 550             | 102              |
| Connecticut.....            | 377             | 218              | 416             | 213              | 921             | 280              | 636             | 449              | 652             | 422              |
| New York.....               | 1, 722          | 1, 452           | 1, 655          | 2, 016           | 1, 473          | 1, 667           | 1, 633          | 1, 677           | 1, 785          | 2, 296           |
| New Jersey.....             | 112             | 324              | 183             | 388              | 196             | 199              | 209             | 331              | 400             | 388              |
| Pennsylvania.....           | 286             | 180              | 329             | 350              | 427             | 677              | 718             | 792              | 787             | 905              |
| South Atlantic Division:    |                 |                  |                 |                  |                 |                  |                 |                  |                 |                  |
| Delaware.....               | 9               | 29               | 2               | 29               | 3               | 22               | 130             | 10               | 7               | 5                |
| Maryland.....               | 69              | 9                | 68              | 25               | 82              | 39               | 120             | 35               | 112             | 15               |
| District of Columbia.....   | 50              | 18               | 60              | 18               | 72              | 42               | 33              | 18               | 56              | 26               |
| Virginia.....               | 254             | 72               | 272             | 61               | 151             | 96               | 356             | 106              | 356             | 73               |
| West Virginia.....          | 7               | 2                | 0               | 0                | 0               | 0                | 49              | 1                | 87              | 21               |
| North Carolina.....         | 71              | 65               | 42              | 65               | 43              | 10               | 146             | 47               | 171             | 18               |
| South Carolina.....         | 73              | 3                | 68              | 5                | 88              | 32               | 336             | 179              | 381             | 110              |
| Georgia.....                | 259             | 67               | 404             | 70               | 678             | 64               | 967             | 155              | 977             | 249              |
| Florida.....                | 83              | 27               | 75              | 67               | 52              | 29               | 47              | 62               | 41              | 40               |
| South Central Division:     |                 |                  |                 |                  |                 |                  |                 |                  |                 |                  |
| Kentucky.....               | 139             | 85               | 137             | 111              | 182             | 142              | 473             | 230              | 326             | 250              |
| Tennessee.....              | 114             | 131              | 121             | 53               | 231             | 198              | 365             | 274              | 452             | 275              |
| Alabama.....                | 58              | 22               | 45              | 19               | 77              | 13               | 278             | 71               | 429             | 185              |
| Mississippi.....            | 83              | 16               | 227             | 27               | 233             | 143              | 661             | 305              | 490             | 333              |
| Louisiana.....              | .....           | 4                | 0               | 55               | 32              | 55               | 32              | 60               | 193             | 193              |
| Texas.....                  | 524             | 212              | 659             | 448              | 795             | 513              | 1, 036          | 543              | 1, 086          | 569              |
| Arkansas.....               | 81              | 79               | 131             | 25               | 159             | 97               | 164             | 375              | 500             | 171              |
| Oklahoma.....               | .....           | .....            | .....           | .....            | .....           | .....            | 7               | .....            | 57              | 69               |
| Indian Territory.....       | .....           | .....            | 0               | 0                | .....           | .....            | 0               | 0                | 11              | 5                |
| North Central Division:     |                 |                  |                 |                  |                 |                  |                 |                  |                 |                  |
| Ohio.....                   | 887             | 1, 341           | 1, 199          | 1, 833           | 1, 377          | 1, 922           | 1, 388          | 1, 361           | 1, 757          | 1, 518           |
| Indiana.....                | 325             | 414              | 588             | 642              | 747             | 392              | 506             | 560              | 1, 000          | 507              |
| Illinois.....               | 534             | 744              | 689             | 1, 354           | 960             | 1, 289           | 1, 139          | 1, 591           | 1, 316          | 1, 623           |
| Michigan.....               | 390             | 1, 229           | 489             | 1, 611           | 342             | 1, 452           | 678             | 1, 583           | 536             | 1, 631           |
| Wisconsin.....              | 378             | 377              | 296             | 570              | 304             | 661              | 333             | 616              | 407             | 742              |
| Minnesota.....              | 306             | 890              | 244             | 1, 462           | 366             | 1, 642           | 275             | 1, 508           | 464             | 1, 949           |
| Iowa.....                   | 625             | 480              | 751             | 767              | 850             | 824              | 785             | 742              | 911             | 1, 039           |
| Missouri.....               | 453             | 627              | 310             | 447              | 510             | 551              | 634             | 580              | 996             | 561              |
| North Dakota.....           | 14              | 16               | 50              | 16               | 52              | .....            | 61              | 70               | 22              | 87               |
| South Dakota.....           | 66              | 30               | 44              | 20               | 7               | 28               | 81              | 55               | 165             | 45               |
| Nebraska.....               | 468             | 337              | 434             | 552              | 409             | 391              | 752             | 379              | 1, 041          | 577              |
| Kansas.....                 | 461             | 610              | 407             | 685              | 541             | 392              | 853             | 408              | 1, 024          | 520              |
| Western Division:           |                 |                  |                 |                  |                 |                  |                 |                  |                 |                  |
| Montana.....                | 18              | .....            | 78              | 23               | 76              | 37               | 80              | 58               | 98              | 87               |
| Wyoming.....                | .....           | .....            | 0               | 0                | .....           | 7                | 0               | .....            | .....           | .....            |
| Colorado.....               | 139             | 155              | 129             | 81               | 142             | 270              | 167             | 260              | 348             | 656              |
| New Mexico.....             | .....           | .....            | 1               | 0                | 10              | 0                | 18              | 27               | 17              | 3                |
| Arizona.....                | .....           | 7                | 0               | 19               | 0               | 12               | 5               | 10               | 8               | .....            |
| Utah.....                   | .....           | .....            | 0               | 0                | .....           | .....            | 6               | .....            | 78              | 47               |
| Nevada.....                 | 12              | 70               | 4               | 21               | 2               | 26               | 25              | 19               | 23              | 9                |
| Idaho.....                  | 13              | 8                | 13              | 8                | 43              | 5                | 25              | 11               | 16              | .....            |
| Washington.....             | 29              | 18               | 15              | 24               | 14              | 11               | 128             | 119              | 122             | 145              |
| Oregon.....                 | 3               | 14               | 101             | 30               | 135             | 27               | 60              | 28               | 57              | 69               |
| California.....             | 190             | 713              | 226             | 862              | 244             | 920              | 432             | 861              | 416             | 1, 056           |

TABLE 39.—*Review of public high school statistics, 1890-1895.*

## CLASSICAL COLLEGE PREPARATORY STUDENTS, MALE AND FEMALE.

| State or Territory.         | 1890-91. |              | 1891-92. |              | 1892-93. |              | 1893-94. |              | 1894-95. |              |
|-----------------------------|----------|--------------|----------|--------------|----------|--------------|----------|--------------|----------|--------------|
|                             | Male.    | Fe-<br>male. | Male.    | Fe-<br>male. | Male.    | Fe-<br>male. | Male.    | Fe-<br>male. | Male.    | Fe-<br>male. |
| United States.....          | 6, 773   | 6, 015       | 8, 311   | 6, 913       | 8, 985   | 8, 587       | 11, 505  | 11, 269      | 12, 915  | 13, 455      |
| North Atlantic Division.... | 3, 291   | 2, 310       | 4, 219   | 2, 631       | 4, 282   | 3, 258       | 5, 132   | 3, 898       | 5, 487   | 4, 462       |
| South Atlantic Division.... | 490      | 396          | 594      | 397          | 691      | 478          | 1, 186   | 998          | 1, 057   | 1, 131       |
| South Central Division..... | 487      | 512          | 610      | 684          | 8 6      | 896          | 1, 361   | 1, 678       | 1, 625   | 1, 786       |
| North Central Division..... | 2, 303   | 2, 604       | 2, 574   | 2, 918       | 2, 859   | 3, 606       | 3, 347   | 4, 228       | 4, 203   | 5, 436       |
| Western Division.....       | 202      | 193          | 284      | 283          | 317      | 349          | 479      | 467          | 543      | 640          |
| North Atlantic Division:    |          |              |          |              |          |              |          |              |          |              |
| Maine.....                  | 350      | 229          | 454      | 272          | 513      | 385          | 588      | 431          | 455      | 422          |
| New Hampshire.....          | 99       | 95           | 131      | 102          | 146      | 130          | 136      | 160          | 140      | 151          |
| Vermont.....                | 95       | 49           | 119      | 92           | 145      | 95           | 153      | 104          | 154      | 108          |
| Massachusetts.....          | 989      | 972          | 1, 642   | 1, 182       | 1, 519   | 1, 175       | 2, 025   | 1, 738       | 2, 244   | 2, 101       |
| Rhode Island.....           | 189      | 68           | 196      | 77           | 215      | 200          | 261      | 148          | 322      | 228          |
| Connecticut.....            | 233      | 194          | 277      | 139          | 516      | 405          | 576      | 260          | 408      | 244          |
| New York.....               | 1, 053   | 669          | 1, 103   | 552          | 914      | 559          | 1, 019   | 614          | 1, 062   | 723          |
| New Jersey.....             | 70       | 42           | 102      | 81           | 118      | 78           | 161      | 138          | 236      | 164          |
| Pennsylvania.....           | 204      | 82           | 195      | 134          | 196      | 231          | 413      | 305          | 466      | 321          |
| South Atlantic Division:    |          |              |          |              |          |              |          |              |          |              |
| Delaware.....               | 6        | 3            | 2        | 0            | 3        | 0            | 68       | 62           | 3        | 4            |
| Maryland.....               | 37       | 32           | 36       | 32           | 35       | 47           | 74       | 46           | 67       | 45           |
| District of Columbia.....   | 36       | 20           | 40       | 20           | 52       | 20           | 17       | 16           | 28       | 28           |
| Virginia.....               | 126      | 128          | 149      | 123          | 84       | 67           | 191      | 165          | 200      | 156          |
| West Virginia.....          | 5        | 2            | 0        | 0            | 0        | 0            | 32       | 17           | 52       | 35           |
| North Carolina.....         | 31       | 40           | 20       | 22           | 22       | 21           | 57       | 89           | 76       | 95           |
| South Carolina.....         | 37       | 36           | 37       | 31           | 42       | 46           | 163      | 173          | 186      | 195          |
| Georgia.....                | 163      | 96           | 271      | 133          | 424      | 254          | 563      | 404          | 425      | 552          |
| Florida.....                | 49       | 39           | 39       | 36           | 29       | 23           | 21       | 26           | 20       | 21           |
| South Central Division:     |          |              |          |              |          |              |          |              |          |              |
| Kentucky.....               | 66       | 73           | 74       | 63           | 94       | 88           | 197      | 276          | 172      | 154          |
| Tennessee.....              | 47       | 67           | 56       | 65           | 113      | 118          | 182      | 183          | 244      | 208          |
| Alabama.....                | 38       | 20           | 23       | 22           | 39       | 38           | 124      | 154          | 221      | 208          |
| Mississippi.....            | 51       | 32           | 115      | 112          | 115      | 128          | 326      | 335          | 225      | 265          |
| Louisiana.....              |          |              | 4        | 0            | 30       | 25           | 30       | 25           | 22       | 38           |
| Texas.....                  | 256      | 268          | 305      | 354          | 374      | 421          | 437      | 599          | 478      | 608          |
| Arkansas.....               | 29       | 52           | 63       | 68           | 81       | 78           | 61       | 103          | 231      | 269          |
| Oklahoma.....               |          |              |          |              |          |              | 4        | 3            | 28       | 29           |
| Indian Territory.....       |          |              | 0        | 0            |          |              | 0        | 0            | 4        | 7            |
| North Central Division:     |          |              |          |              |          |              |          |              |          |              |
| Ohio.....                   | 494      | 393          | 620      | 579          | 742      | 635          | 716      | 672          | 874      | 883          |
| Indiana.....                | 163      | 162          | 273      | 315          | 319      | 428          | 261      | 335          | 435      | 565          |
| Illinois.....               | 263      | 266          | 323      | 366          | 405      | 555          | 463      | 676          | 565      | 751          |
| Michigan.....               | 184      | 206          | 254      | 235          | 166      | 176          | 291      | 387          | 252      | 284          |
| Wisconsin.....              | 158      | 229          | 135      | 161          | 115      | 189          | 149      | 184          | 171      | 236          |
| Minnesota.....              | 156      | 150          | 131      | 104          | 226      | 140          | 129      | 146          | 225      | 239          |
| Iowa.....                   | 216      | 409          | 279      | 472          | 293      | 557          | 313      | 472          | 405      | 506          |
| Missouri.....               | 204      | 249          | 144      | 166          | 181      | 329          | 288      | 346          | 403      | 593          |
| North Dakota.....           | 7        | 7            | 20       | 30           | 24       | 28           | 29       | 32           | 9        | 13           |
| South Dakota.....           | 30       | 36           | 16       | 28           | 3        | 4            | 34       | 47           | 71       | 94           |
| Nebraska.....               | 216      | 252          | 203      | 231          | 165      | 244          | 332      | 420          | 416      | 625          |
| Kansas.....                 | 207      | 254          | 176      | 231          | 220      | 321          | 342      | 511          | 377      | 647          |
| Western Division:           |          |              |          |              |          |              |          |              |          |              |
| Montana.....                | 9        | 9            | 32       | 46           | 33       | 43           | 27       | 53           | 32       | 66           |
| Wyoming.....                |          |              | 2        | 0            |          |              | 0        | 0            |          |              |
| Colorado.....               | 90       | 49           | 89       | 40           | 96       | 46           | 74       | 93           | 153      | 195          |
| New Mexico.....             |          |              | 0        | 1            | 10       | 0            | 11       | 7            | 7        | 10           |
| Arizona.....                |          |              | 0        | 0            | 0        | 0            | 1        | 4            | 2        | 6            |
| Utah.....                   |          |              | 0        | 0            |          |              | 6        | 0            | 34       | 44           |
| Nevada.....                 | 5        | 7            | 2        | 2            | 1        | 1            | 10       | 15           | 9        | 14           |
| Idaho.....                  | 7        | 6            | 7        | 6            | 16       | 27           | 15       | 10           | 6        | 10           |
| Washington.....             | 11       | 9            | 9        | 6            | 6        | 8            | 50       | 78           | 46       | 76           |
| Oregon.....                 | 3        |              | 31       | 70           | 46       | 89           | 30       | 30           | 28       | 29           |
| California.....             | 77       | 113          | 114      | 112          | 109      | 135          | 255      | 177          | 226      | 190          |

TABLE 40.—*Review of public high school statistics, 1890-1895.*

## SCIENTIFIC COLLEGE PREPARATORY STUDENTS, MALE AND FEMALE.

| State or Territory.          | 1890-91. |              | 1891-92. |              | 1892-93. |              | 1893-94. |              | 1894-95. |              |
|------------------------------|----------|--------------|----------|--------------|----------|--------------|----------|--------------|----------|--------------|
|                              | Male.    | Fe-<br>male. | Male.    | Fe-<br>male. | Male.    | Fe-<br>male. | Male.    | Fe-<br>male. | Male.    | Fe-<br>male. |
| United States .....          | 6,465    | 5,805        | 8,193    | 8,324        | 8,521    | 8,042        | 9,759    | 8,847        | 11,587   | 10,189       |
| North Atlantic Division..... | 2,202    | 1,161        | 2,795    | 1,687        | 2,588    | 1,674        | 3,503    | 1,902        | 3,917    | 2,351        |
| South Atlantic Division..... | 179      | 104          | 196      | 144          | 170      | 164          | 324      | 289          | 307      | 250          |
| South Central Division.....  | 295      | 250          | 349      | 334          | 548      | 590          | 891      | 939          | 1,056    | 994          |
| North Central Division.....  | 3,338    | 3,757        | 4,355    | 5,589        | 4,519    | 4,965        | 4,320    | 5,043        | 5,231    | 5,568        |
| Western Division .....       | 451      | 533          | 498      | 570          | 666      | 649          | 721      | 674          | 1,046    | 1,026        |
| North Atlantic Division:     |          |              |          |              |          |              |          |              |          |              |
| Maine .....                  | 148      | 92           | 128      | 64           | 108      | 43           | 169      | 97           | 174      | 71           |
| New Hampshire.....           | 83       | 45           | 91       | 68           | 83       | 45           | 116      | 78           | 144      | 125          |
| Vermont.....                 | 95       | 110          | 130      | 163          | 129      | 102          | 206      | 193          | 175      | 189          |
| Massachusetts.....           | 487      | 107          | 642      | 190          | 693      | 195          | 892      | 281          | 1,041    | 265          |
| Rhode Island.....            | 11       | 11           | 24       | 9            | 31       | 10           | 53       | 71           | 68       | 34           |
| Connecticut.....             | 194      | 24           | 194      | 19           | 246      | 34           | 416      | 33           | 332      | 90           |
| New York.....                | 895      | 557          | 1,135    | 881          | 940      | 727          | 965      | 712          | 1,195    | 1,101        |
| New Jersey.....              | 162      | 162          | 214      | 174          | 136      | 63           | 229      | 102          | 226      | 162          |
| Pennsylvania.....            | 127      | 53           | 237      | 113          | 222      | 455          | 457      | 335          | 592      | 314          |
| South Atlantic Division:     |          |              |          |              |          |              |          |              |          |              |
| Delaware.....                | 5        | 15           | 15       | 14           | 16       | 6            | 9        | 1            | 5        | 0            |
| Maryland.....                | 6        | 3            | 10       | 15           | 12       | 27           | 18       | 17           | 14       | 1            |
| District of Columbia.....    | 18       |              | 18       | 0            | 36       | 6            | 12       | 6            | 17       | 9            |
| Virginia.....                | 40       | 32           | 32       | 29           | 32       | 64           | 52       | 54           | 41       | 32           |
| West Virginia.....           | 2        |              | 0        | 0            | 0        | 0            | 1        | 0            | 13       | 8            |
| North Carolina.....          | 27       | 38           | 27       | 38           | 10       | 0            | 20       | 27           | 13       | 5            |
| South Carolina.....          | 3        |              | 2        | 3            | 17       | 15           | 100      | 79           | 64       | 46           |
| Georgia.....                 | 61       | 6            | 65       | 5            | 30       | 34           | 84       | 71           | 123      | 126          |
| Florida.....                 | 17       | 10           | 27       | 40           | 17       | 12           | 28       | 34           | 17       | 23           |
| South Central Division:      |          |              |          |              |          |              |          |              |          |              |
| Kentucky.....                | 45       | 40           | 62       | 49           | 74       | 68           | 122      | 108          | 128      | 122          |
| Tennessee.....               | 70       | 61           | 30       | 23           | 77       | 121          | 152      | 122          | 142      | 133          |
| Alabama.....                 | 15       | 7            | 13       | 6            | 12       | 1            | 43       | 25           | 102      | 83           |
| Mississippi.....             | 16       |              | 20       | 7            | 76       | 67           | 126      | 179          | 163      | 170          |
| Louisiana.....               |          |              | 0        | 0            | 18       | 14           | 18       | 14           | 100      | 93           |
| Texas.....                   | 102      | 105          | 211      | 237          | 231      | 282          | 245      | 298          | 307      | 262          |
| Arkansas.....                | 42       | 37           | 13       | 12           | 60       | 37           | 190      | 375          | 77       | 94           |
| Oklahoma.....                |          |              |          |              |          |              |          |              | 35       | 34           |
| Indian Territory.....        |          |              | 0        | 0            |          |              | 0        | 0            | 2        | 3            |
| North Central Division:      |          |              |          |              |          |              |          |              |          |              |
| Ohio.....                    | 623      | 718          | 853      | 980          | 1,107    | 815          | 662      | 699          | 754      | 764          |
| Indiana.....                 | 166      | 248          | 311      | 331          | 204      | 158          | 285      | 275          | 285      | 222          |
| Illinois.....                | 337      | 407          | 491      | 863          | 519      | 740          | 629      | 872          | 792      | 831          |
| Michigan.....                | 673      | 556          | 702      | 894          | 716      | 736          | 796      | 787          | 789      | 842          |
| Wisconsin.....               | 180      | 197          | 311      | 259          | 334      | 327          | 302      | 314          | 379      | 363          |
| Minnesota.....               | 423      | 467          | 598      | 864          | 716      | 926          | 670      | 838          | 965      | 984          |
| Iowa.....                    | 208      | 272          | 383      | 384          | 356      | 468          | 314      | 428          | 468      | 571          |
| Missouri.....                | 306      | 321          | 203      | 244          | 243      | 308          | 257      | 323          | 260      | 301          |
| North Dakota.....            | 9        | 7            | 9        | 7            |          |              | 32       | 38           | 43       | 44           |
| South Dakota.....            | 7        | 23           | 10       | 10           | 12       | 16           | 30       | 25           | 20       | 25           |
| Nebraska.....                | 143      | 194          | 192      | 360          | 154      | 237          | 166      | 213          | 248      | 329          |
| Kansas.....                  | 263      | 347          | 292      | 393          | 158      | 234          | 177      | 231          | 228      | 292          |
| Western Division:            |          |              |          |              |          |              |          |              |          |              |
| Montana.....                 |          |              | 11       | 12           | 16       | 21           | 34       | 24           | 49       | 38           |
| Wyoming.....                 |          |              | 0        | 0            | 3        | 4            | 0        | 2            |          |              |
| Colorado.....                | 86       | 69           | 31       | 50           | 111      | 150          | 124      | 126          | 306      | 350          |
| New Mexico.....              |          |              | 0        | 0            | 0        | 0            | 13       | 14           | 3        | 0            |
| Arizona.....                 | 5        | 2            | 9        | 10           | 4        | 8            | 4        | 6            |          |              |
| Utah.....                    |          |              | 0        | 0            |          |              |          |              | 29       | 18           |
| Nevada.....                  | 22       | 48           | 12       | 9            | 13       | 13           | 7        | 12           | 1        | 8            |
| Idaho.....                   | 5        | 3            | 5        | 3            | 0        | 5            | 6        |              |          |              |
| Washington.....              | 12       | 6            | 17       | 7            | 10       | 1            | 52       | 67           | 66       | 79           |
| Oregon.....                  | 6        | 8            | 9        | 21           | 10       | 17           | 15       | 13           | 35       | 34           |
| California.....              | 315      | 397          | 404      | 458          | 499      | 421          | 467      | 394          | 557      | 499          |

TABLE 41.—*Review of public high school statistics, 1891-1895.*

## NUMBER OF GRADUATES, MALE AND FEMALE.

| State or Territory.          | 1891-92. |         | 1892-93. |         | 1893-94. |         | 1894-95. |         |
|------------------------------|----------|---------|----------|---------|----------|---------|----------|---------|
|                              | Male.    | Female. | Male.    | Female. | Male.    | Female. | Male.    | Female. |
| United States.....           | 9,517    | 16,055  | 10,256   | 19,154  | 13,233   | 24,095  | 15,158   | 27,235  |
| North Atlantic Division..... | 3,827    | 5,962   | 4,151    | 6,980   | 4,848    | 8,285   | 5,342    | 9,137   |
| South Atlantic Division..... | 296      | 558     | 421      | 825     | 599      | 1,324   | 698      | 1,448   |
| South Central Division.....  | 375      | 735     | 417      | 790     | 551      | 1,205   | 649      | 1,452   |
| North Central Division.....  | 4,573    | 8,116   | 4,830    | 9,755   | 6,491    | 12,135  | 7,598    | 13,867  |
| Western Division.....        | 446      | 684     | 437      | 834     | 744      | 1,146   | 871      | 1,331   |
| North Atlantic Division:     |          |         |          |         |          |         |          |         |
| Maine.....                   | 190      | 372     | 236      | 459     | 324      | 531     | 304      | 480     |
| New Hampshire.....           | 130      | 192     | 123      | 218     | 164      | 231     | 135      | 267     |
| Vermont.....                 | 106      | 154     | 118      | 215     | 150      | 268     | 146      | 244     |
| Massachusetts.....           | 881      | 1,574   | 1,328    | 1,999   | 1,513    | 2,406   | 1,528    | 2,378   |
| Rhode Island.....            | 70       | 132     | 76       | 151     | 89       | 137     | 125      | 231     |
| Connecticut.....             | 211      | 358     | 181      | 367     | 279      | 435     | 261      | 461     |
| New York.....                | 1,377    | 1,622   | 1,317    | 1,642   | 1,181    | 1,858   | 1,344    | 2,171   |
| New Jersey.....              | 180      | 330     | 192      | 434     | 286      | 551     | 337      | 640     |
| Pennsylvania.....            | 673      | 1,128   | 580      | 1,465   | 871      | 1,888   | 1,162    | 2,265   |
| South Atlantic Division:     |          |         |          |         |          |         |          |         |
| Delaware.....                | 35       | 45      | 43       | 39      | 48       | 64      | 59       | 71      |
| Maryland.....                | 32       | 50      | 44       | 136     | 87       | 246     | 95       | 280     |
| District of Columbia.....    | 8        | 46      | 126      | 248     | 117      | 299     | 139      | 261     |
| Virginia.....                | 61       | 133     | 50       | 134     | 92       | 218     | 125      | 225     |
| West Virginia.....           | 29       | 56      | 12       | 35      | 23       | 64      | 32       | 118     |
| North Carolina.....          | 51       | 61      | 22       | 47      | 20       | 39      | 41       | 42      |
| South Carolina.....          | 3        | 24      | 5        | 39      | 37       | 72      | 50       | 80      |
| Georgia.....                 | 49       | 103     | 102      | 119     | 159      | 394     | 143      | 345     |
| Florida.....                 | 28       | 40      | 17       | 28      | 16       | 18      | 14       | 26      |
| South Central Division:      |          |         |          |         |          |         |          |         |
| Kentucky.....                | 52       | 98      | 82       | 129     | 123      | 221     | 104      | 245     |
| Tennessee.....               | 71       | 118     | 63       | 174     | 107      | 255     | 141      | 343     |
| Alabama.....                 | 30       | 46      | 23       | 62      | 16       | 73      | 60       | 164     |
| Mississippi.....             | 35       | 59      | 45       | 99      | 86       | 151     | 59       | 105     |
| Louisiana.....               | 79       | 149     | 54       | 10      | 86       | 139     | 51       | 123     |
| Texas.....                   | 77       | 191     | 109      | 248     | 145      | 285     | 156      | 328     |
| Arkansas.....                | 28       | 74      | 38       | 68      | 38       | 86      | 71       | 135     |
| Oklahoma.....                |          |         |          |         |          |         | 3        | 6       |
| Indian Territory.....        | 3        | 0       | 3        |         | 0        | 4       | 4        | 3       |
| North Central Division:      |          |         |          |         |          |         |          |         |
| Ohio.....                    | 1,237    | 1,835   | 1,036    | 1,967   | 1,246    | 2,256   | 1,546    | 2,720   |
| Indiana.....                 | 304      | 652     | 474      | 863     | 617      | 1,005   | 753      | 1,282   |
| Illinois.....                | 526      | 1,427   | 683      | 1,730   | 954      | 2,261   | 1,063    | 2,345   |
| Michigan.....                | 478      | 831     | 575      | 1,056   | 877      | 1,441   | 866      | 1,374   |
| Wisconsin.....               | 407      | 564     | 381      | 736     | 539      | 719     | 574      | 997     |
| Minnesota.....               | 247      | 406     | 273      | 473     | 375      | 530     | 415      | 711     |
| Iowa.....                    | 627      | 1,166   | 635      | 1,248   | 824      | 1,577   | 1,034    | 1,749   |
| Missouri.....                | 298      | 416     | 252      | 643     | 367      | 1,014   | 451      | 1,047   |
| North Dakota.....            | 7        | 11      |          | 6       | 18       | 30      | 27       | 46      |
| South Dakota.....            | 16       | 31      | 15       | 45      | 37       | 39      | 50       | 81      |
| Nebraska.....                | 225      | 383     | 211      | 434     | 285      | 573     | 384      | 675     |
| Kansas.....                  | 201      | 394     | 295      | 554     | 352      | 610     | 435      | 840     |
| Western Division:            |          |         |          |         |          |         |          |         |
| Montana.....                 | 12       | 17      | 19       | 35      | 31       | 50      | 33       | 56      |
| Wyoming.....                 | 9        | 9       | 1        | 7       | 15       | 3       | 8        | 8       |
| Colorado.....                | 77       | 136     | 75       | 143     | 120      | 213     | 174      | 251     |
| New Mexico.....              | 0        | 3       | 3        | 3       | 5        | 11      | 2        | 8       |
| Arizona.....                 | 6        | 12      | 4        | 8       | 7        | 17      | 10       | 13      |
| Utah.....                    | 0        | 8       | 5        | 10      | 10       | 14      | 14       | 35      |
| Nevada.....                  | 17       | 39      | 12       | 45      | 19       | 50      | 10       | 45      |
| Idaho.....                   | 8        | 8       | 4        | 16      | 9        | 18      | 9        | 22      |
| Washington.....              | 25       | 20      | 34       | 46      | 65       | 114     | 86       | 123     |
| Oregon.....                  | 32       | 55      | 34       | 74      | 54       | 88      | 72       | 92      |
| California.....              | 260      | 377     | 246      | 417     | 409      | 568     | 453      | 678     |



TABLE 42.—Review of public high school statistics, 1890-1895.

## GRADUATES AND COLLEGE PREPARATORY STUDENTS IN GRADUATING CLASS.

| State or Territory.          | 1890-91.   |                      | 1891-92.   |                      | 1892-93.   |                      | 1893-94.   |                      | 1894-95.   |                      |
|------------------------------|------------|----------------------|------------|----------------------|------------|----------------------|------------|----------------------|------------|----------------------|
|                              | Graduates. | In graduating class. | Graduates. | In graduating class. | Graduates. | In graduating class. | Graduates. | In graduating class. | Graduates. | In graduating class. |
| United States.....           | 25,459     | 7,276                | 28,499     | 9,246                | 29,410     | 8,815                | 37,328     | 9,966                | 42,393     | 11,903               |
| North Atlantic Division..... | 10,117     | 2,144                | 10,836     | 2,491                | 11,131     | 2,395                | 13,133     | 2,841                | 14,479     | 3,148                |
| South Atlantic Division..... | 1,315      | 359                  | 996        | 411                  | 1,216      | 352                  | 1,923      | 526                  | 2,146      | 535                  |
| South Central Division.....  | 979        | 300                  | 1,215      | 567                  | 1,207      | 816                  | 1,756      | 485                  | 2,101      | 694                  |
| North Central Division.....  | 12,935     | 3,996                | 14,282     | 5,230                | 14,585     | 4,661                | 18,626     | 5,464                | 21,465     | 6,655                |
| Western Division.....        | 1,053      | 477                  | 1,170      | 547                  | 1,241      | 561                  | 1,890      | 650                  | 2,202      | 811                  |
| North Atlantic Division:     |            |                      |            |                      |            |                      |            |                      |            |                      |
| Maine.....                   | 206        | 165                  | 707        | 192                  | 695        | 158                  | 855        | 223                  | 781        | 200                  |
| New Hampshire.....           | 426        | 77                   | 378        | 103                  | 341        | 86                   | 395        | 105                  | 402        | 103                  |
| Vermont.....                 | 241        | 53                   | 260        | 70                   | 333        | 142                  | 418        | 150                  | 399        | 120                  |
| Massachusetts.....           | 2,962      | 469                  | 2,812      | 687                  | 3,327      | 635                  | 3,919      | 785                  | 3,906      | 896                  |
| Rhode Island.....            | 191        | 66                   | 202        | 58                   | 227        | 80                   | 217        | 75                   | 356        | 114                  |
| Connecticut.....             | 574        | 219                  | 615        | 131                  | 548        | 181                  | 714        | 232                  | 722        | 206                  |
| New York.....                | 2,774      | 676                  | 3,019      | 747                  | 2,959      | 776                  | 3,019      | 826                  | 3,515      | 851                  |
| New Jersey.....              | 633        | 133                  | 676        | 127                  | 656        | 100                  | 837        | 89                   | 977        | 138                  |
| Pennsylvania.....            | 2,140      | 286                  | 2,137      | 376                  | 2,045      | 234                  | 2,759      | 356                  | 3,427      | 520                  |
| South Atlantic Division:     |            |                      |            |                      |            |                      |            |                      |            |                      |
| Delaware.....                | 78         | 20                   | 80         | 10                   | 82         | 6                    | 112        | 28                   | 130        | 11                   |
| Maryland.....                | 85         | 43                   | 108        | 52                   | 180        | 46                   | 333        | 45                   | 375        | 48                   |
| District of Columbia.....    | 387        | 32                   | 54         | 30                   | 374        | 43                   | 416        | 63                   | 400        | 18                   |
| Virginia.....                | 178        | 45                   | 194        | 43                   | 184        | 63                   | 310        | 59                   | 350        | 97                   |
| West Virginia.....           | 73         | 1                    | 85         | 3                    | 47         | 5                    | 87         | 19                   | 150        | 16                   |
| North Carolina.....          | 112        | 71                   | 112        | 69                   | 69         | 37                   | 59         | 28                   | 83         | 48                   |
| South Carolina.....          | 57         | 25                   | 27         | 30                   | 44         | 23                   | 109        | 76                   | 130        | 67                   |
| Georgia.....                 | 323        | 109                  | 261        | 151                  | 221        | 105                  | 463        | 192                  | 488        | 276                  |
| Florida.....                 | 52         | 13                   | 75         | 23                   | 45         | 24                   | 34         | 16                   | 40         | 14                   |
| South Central Division:      |            |                      |            |                      |            |                      |            |                      |            |                      |
| Kentucky.....                | 255        | 67                   | 255        | 63                   | 211        | 84                   | 344        | 84                   | 349        | 94                   |
| Tennessee.....               | 136        | 32                   | 189        | 99                   | 237        | 43                   | 362        | 51                   | 484        | 171                  |
| Alabama.....                 | 71         | 31                   | 76         | 93                   | 85         | 39                   | 89         | 17                   | 224        | 32                   |
| Mississippi.....             | 51         | 35                   | 94         | 110                  | 144        | 398                  | 227        | 135                  | 164        | 141                  |
| Louisiana.....               | 151        | .....                | 228        | 3                    | 64         | 6                    | 166        | 13                   | 174        | 5                    |
| Texas.....                   | 235        | 94                   | 263        | 160                  | 357        | 246                  | 430        | 145                  | 484        | 162                  |
| Arkansas.....                | 89         | 41                   | 102        | 34                   | 106        | 30                   | 124        | 30                   | 206        | 83                   |
| Oklahoma.....                | .....      | .....                | .....      | .....                | .....      | .....                | .....      | .....                | 9          | 6                    |
| Indian Territory.....        | .....      | .....                | 3          | 0                    | 3          | .....                | 4          | 0                    | 7          | .....                |
| North Central Division:      |            |                      |            |                      |            |                      |            |                      |            |                      |
| Ohio.....                    | 2,935      | 660                  | 3,073      | 699                  | 3,003      | 738                  | 3,502      | 799                  | 4,266      | 909                  |
| Indiana.....                 | 1,086      | 374                  | 1,254      | 430                  | 1,337      | 462                  | 1,622      | 427                  | 2,035      | 602                  |
| Illinois.....                | 1,998      | 416                  | 2,234      | 562                  | 2,413      | 578                  | 3,215      | 784                  | 3,408      | 890                  |
| Michigan.....                | 954        | 570                  | 1,625      | 804                  | 1,631      | 662                  | 2,318      | 763                  | 2,240      | 838                  |
| Wisconsin.....               | 832        | 253                  | 975        | 390                  | 1,117      | 381                  | 1,338      | 349                  | 1,571      | 475                  |
| Minnesota.....               | 959        | 310                  | 809        | 521                  | 746        | 423                  | 965        | 391                  | 1,126      | 610                  |
| Iowa.....                    | 1,750      | 545                  | 1,966      | 781                  | 1,883      | 550                  | 2,401      | 722                  | 2,783      | 858                  |
| Missouri.....                | 822        | 259                  | 855        | 312                  | 895        | 240                  | 1,381      | 359                  | 1,498      | 357                  |
| North Dakota.....            | 21         | 15                   | 13         | 18                   | 6          | 6                    | 48         | 32                   | 73         | 39                   |
| South Dakota.....            | 261        | 11                   | 47         | 44                   | 60         | 15                   | 76         | 19                   | 131        | 50                   |
| Nebraska.....                | 590        | 247                  | 680        | 343                  | 645        | 303                  | 858        | 423                  | 1,050      | 454                  |
| Kansas.....                  | 721        | 336                  | 746        | 326                  | 849        | 303                  | 962        | 396                  | 1,275      | 543                  |
| Western Division:            |            |                      |            |                      |            |                      |            |                      |            |                      |
| Montana.....                 | 10         | 2                    | 33         | 18                   | 54         | 28                   | 81         | 14                   | 89         | 36                   |
| Wyoming.....                 | 18         | 16                   | 18         | 16                   | 8          | .....                | 18         | 8                    | 16         | 2                    |
| Colorado.....                | 193        | 64                   | 213        | 108                  | 218        | 107                  | 333        | 121                  | 425        | 170                  |
| New Mexico.....              | .....      | .....                | 3          | 0                    | 6          | 0                    | 16         | 8                    | 10         | 0                    |
| Arizona.....                 | 21         | 7                    | 18         | 7                    | 12         | 2                    | 24         | 5                    | 23         | 0                    |
| Utah.....                    | .....      | .....                | 8          | 0                    | 15         | 7                    | 24         | 12                   | 49         | 28                   |
| Nevada.....                  | 57         | 11                   | 66         | 26                   | 57         | 15                   | 69         | 11                   | 55         | 20                   |
| Idaho.....                   | 15         | 9                    | 16         | 9                    | 20         | 9                    | 27         | 16                   | 31         | 17                   |
| Washington.....              | 48         | 10                   | 45         | 9                    | 80         | 36                   | 179        | 32                   | 209        | 64                   |
| Oregon.....                  | 51         | 9                    | 87         | 56                   | 108        | 75                   | 142        | 36                   | 164        | 27                   |
| California.....              | 637        | 349                  | 663        | 298                  | 663        | 282                  | 977        | 387                  | 1,131      | 447                  |

TABLE 43.—*Review of public high school statistics, 1890-1895.*

## COLLEGE PREPARATORY STUDENTS IN GRADUATING CLASS.

| State or Territory.          | 1890-91. |              | 1891-92. |              | 1892-93. |              | 1893-94. |              | 1894-95. |              |
|------------------------------|----------|--------------|----------|--------------|----------|--------------|----------|--------------|----------|--------------|
|                              | Male.    | Fe-<br>male. | Male.    | Fe-<br>male. | Male.    | Fe-<br>male. | Male.    | Fe-<br>male. | Male.    | Fe-<br>male. |
| United States.....           | 3,404    | 3,872        | 4,301    | 4,945        | 4,140    | 4,675        | 4,797    | 5,169        | 5,444    | 6,459        |
| North Atlantic Division..... | 1,209    | 935          | 1,385    | 1,106        | 1,333    | 1,032        | 1,623    | 1,218        | 1,700    | 1,448        |
| South Atlantic Division..... | 153      | 201          | 194      | 217          | 162      | 190          | 245      | 281          | 253      | 342          |
| South Central Division.....  | 120      | 180          | 223      | 339          | 323      | 523          | 205      | 280          | 289      | 405          |
| North Central Division.....  | 1,722    | 2,274        | 2,230    | 3,000        | 2,055    | 2,606        | 2,384    | 3,080        | 2,832    | 2,823        |
| Western Division.....        | 195      | 282          | 264      | 283          | 267      | 294          | 340      | 310          | 370      | 441          |
| North Atlantic Division:     |          |              |          |              |          |              |          |              |          |              |
| Maine.....                   | 100      | 65           | 120      | 72           | 86       | 72           | 140      | 83           | 123      | 77           |
| New Hampshire.....           | 38       | 39           | 58       | 45           | 41       | 45           | 57       | 48           | 45       | 57           |
| Vermont.....                 | 29       | 24           | 29       | 41           | 56       | 83           | 74       | 76           | 57       | 63           |
| Massachusetts.....           | 240      | 229          | 355      | 332          | 353      | 282          | 420      | 365          | 437      | 459          |
| Rhode Island.....            | 43       | 23           | 34       | 24           | 39       | 41           | 48       | 27           | 62       | 52           |
| Connecticut.....             | 129      | 99           | 76       | 55           | 117      | 67           | 153      | 76           | 121      | 85           |
| New York.....                | 3,8      | 278          | 419      | 328          | 441      | 335          | 475      | 351          | 456      | 395          |
| New Jersey.....              | 69       | 64           | 76       | 51           | 52       | 48           | 50       | 39           | 91       | 47           |
| Pennsylvania.....            | 163      | 123          | 218      | 158          | 148      | 86           | 203      | 153          | 307      | 213          |
| South Atlantic Division:     |          |              |          |              |          |              |          |              |          |              |
| Delaware.....                | 8        | 12           | 4        | 6            | 6        | 0            | 13       | 15           | 8        | 3            |
| Maryland.....                | 17       | 26           | 24       | 28           | 24       | 22           | 33       | 12           | 36       | 12           |
| District of Columbia.....    | 20       | 12           | 22       | 8            | 36       | 7            | 39       | 24           | 12       | 6            |
| Virginia.....                | 27       | 18           | 27       | 16           | 22       | 41           | 26       | 33           | 44       | 53           |
| West Virginia.....           | 1        | -----        | 1        | 2            | 2        | 3            | 9        | 10           | 10       | 6            |
| North Carolina.....          | 32       | 39           | 39       | 30           | 16       | 21           | 10       | 18           | 22       | 26           |
| South Carolina.....          | 7        | 18           | 7        | 23           | 7        | 16           | 25       | 51           | 27       | 40           |
| Georgia.....                 | 39       | 70           | 53       | 92           | 39       | 66           | 84       | 108          | 86       | 190          |
| Florida.....                 | 7        | 6            | 11       | 12           | 10       | 14           | 6        | 10           | 8        | 6            |
| South Central Division:      |          |              |          |              |          |              |          |              |          |              |
| Kentucky.....                | 27       | 40           | 27       | 36           | 31       | 53           | 32       | 52           | 48       | 46           |
| Tennessee.....               | 16       | 16           | 40       | 50           | 21       | 22           | 27       | 34           | 66       | 105          |
| Alabama.....                 | 19       | 12           | 25       | 73           | 18       | 21           | 8        | 9            | 21       | 11           |
| Mississippi.....             | 13       | 22           | 57       | 53           | 130      | 268          | 58       | 77           | 53       | 88           |
| Louisiana.....               | -----    | -----        | 0        | 3            | 6        | 0            | 4        | 9            | 4        | 1            |
| Texas.....                   | 33       | 61           | 65       | 95           | 108      | 138          | 63       | 82           | 65       | 97           |
| Arkansas.....                | 12       | 29           | 14       | 20           | 9        | 21           | 13       | 17           | 30       | 53           |
| Oklahoma.....                | -----    | -----        | 0        | 0            | 0        | 0            | -----    | -----        | 2        | 4            |
| Indian Territory.....        | -----    | -----        | 0        | 0            | 0        | 0            | 0        | 0            | -----    | -----        |
| North Central Division:      |          |              |          |              |          |              |          |              |          |              |
| Ohio.....                    | 322      | 338          | 297      | 402          | 397      | 341          | 381      | 418          | 422      | 487          |
| Indiana.....                 | 129      | 245          | 169      | 261          | 184      | 278          | 209      | 218          | 260      | 342          |
| Illinois.....                | 196      | 220          | 236      | 326          | 250      | 328          | 328      | 456          | 385      | 505          |
| Michigan.....                | 238      | 332          | 321      | 475          | 322      | 340          | 326      | 437          | 372      | 466          |
| Wisconsin.....               | 128      | 125          | 187      | 203          | 173      | 208          | 176      | 173          | 220      | 255          |
| Minnesota.....               | 133      | 177          | 241      | 280          | 190      | 233          | 178      | 213          | 256      | 384          |
| Iowa.....                    | 210      | 335          | 318      | 433          | 223      | 327          | 293      | 429          | 358      | 500          |
| Missouri.....                | 104      | 155          | 146      | 166          | 88       | 152          | 146      | 213          | 139      | 218          |
| North Dakota.....            | 4        | 11           | 7        | 11           | 0        | 6            | 13       | 19           | 17       | 22           |
| South Dakota.....            | 5        | 6            | 19       | 25           | 5        | 10           | 11       | 8            | 18       | 32           |
| Nebraska.....                | 107      | 140          | 154      | 189          | 109      | 194          | 173      | 250          | 182      | 272          |
| Kansas.....                  | 146      | 190          | 127      | 199          | 114      | 189          | 150      | 246          | 203      | 340          |
| Western Division:            |          |              |          |              |          |              |          |              |          |              |
| Montana.....                 | 2        | -----        | 7        | 11           | 13       | 15           | 4        | 10           | 18       | 18           |
| Wyoming.....                 | 8        | 8            | 7        | 9            | 0        | 0            | 5        | 3            | 2        | 0            |
| Colorado.....                | 33       | 31           | 50       | 58           | 35       | 72           | 57       | 64           | 73       | 97           |
| New Mexico.....              | -----    | -----        | 0        | 0            | 0        | 0            | 3        | 5            | 0        | 0            |
| Arizona.....                 | 1        | 6            | 3        | 4            | 0        | 2            | 0        | 5            | 0        | 0            |
| Utah.....                    | -----    | -----        | 0        | 0            | 4        | 3            | 6        | 6            | 8        | 20           |
| Nevada.....                  | 4        | 7            | 11       | 15           | 6        | 9            | 2        | 9            | 6        | 14           |
| Idaho.....                   | 4        | 5            | 4        | 5            | 4        | 5            | 9        | 7            | 6        | 11           |
| Washington.....              | 7        | 3            | 6        | 3            | 17       | 19           | 17       | 15           | 30       | 34           |
| Oregon.....                  | 7        | 2            | 20       | 36           | 35       | 40           | 16       | 20           | 13       | 14           |
| California.....              | 129      | 220          | 156      | 142          | 153      | 129          | 221      | 166          | 214      | 233          |

TABLE 41.—*Review of public high school statistics, 1890-1895.*

## NUMBER OF VOLUMES IN LIBRARIES.

| State or Territory.          | 1890-91.    | 1891-92.    | * 1892-93.  | 1893-94.    | 1894-95.    |
|------------------------------|-------------|-------------|-------------|-------------|-------------|
| United States .....          | 1, 068, 542 | 1, 325, 758 | 1, 211, 147 | 1, 572, 690 | 1, 838, 946 |
| North Atlantic Division..... | 461, 837    | 592, 990    | 487, 194    | 637, 056    | 685, 610    |
| South Atlantic Division..... | 28, 121     | 27, 632     | 42, 725     | 46, 610     | 61, 799     |
| South Central Division.....  | 30, 332     | 36, 089     | 35, 663     | 55, 575     | 79, 610     |
| North Central Division.....  | 513, 644    | 631, 854    | 698, 421    | 783, 507    | 941, 197    |
| Western Division.....        | 84, 608     | 37, 173     | 37, 144     | 49, 942     | 68, 730     |
| North Atlantic Division:     |             |             |             |             |             |
| Maine.....                   | 1, 454      | 16, 256     | 15, 401     | 15, 160     | 18, 236     |
| New Hampshire.....           | 14, 665     | 6, 303      | 5, 903      | 8, 552      | 7, 539      |
| Vermont.....                 | 9, 378      | 9, 582      | 10, 969     | 12, 792     | 15, 062     |
| Massachusetts.....           | 66, 518     | 82, 206     | 75, 478     | 72, 079     | 88, 204     |
| Rhode Island.....            | 4, 390      | 10, 609     | 6, 045      | 7, 285      | 8, 330      |
| Connecticut.....             | 25, 172     | 24, 499     | 23, 727     | 30, 526     | 31, 552     |
| New York.....                | 262, 725    | 345, 382    | 260, 555    | 353, 477    | 358, 792    |
| New Jersey.....              | 15, 039     | 19, 004     | 22, 027     | 29, 758     | 34, 480     |
| Pennsylvania.....            | 61, 498     | 78, 249     | 67, 089     | 107, 427    | 123, 415    |
| South Atlantic Division:     |             |             |             |             |             |
| Delaware.....                | 1, 028      | 233         | 1, 690      | 2, 621      | 3, 636      |
| Maryland.....                | 1, 531      | 1, 793      | 2, 356      | 4, 089      | 14, 042     |
| District of Columbia.....    | 6, 210      | 6, 421      | 8, 005      | 8, 410      | 8, 794      |
| Virginia.....                | 3, 276      | 3, 502      | 3, 548      | 3, 801      | 4, 100      |
| West Virginia.....           | 1, 996      | 1, 775      | 8, 805      | 2, 412      | 3, 481      |
| North Carolina.....          | 5, 543      | 5, 143      | 21, 600     | 6, 076      | 7, 175      |
| South Carolina.....          | 625         | 590         | 770         | 3, 165      | 5, 299      |
| Georgia.....                 | 5, 913      | 6, 410      | 3, 721      | 9, 444      | 14, 962     |
| Florida.....                 | 2, 600      | 1, 785      | 830         | 6, 592      | 2, 310      |
| South Central Division:      |             |             |             |             |             |
| Kentucky.....                | 11, 437     | 12, 555     | 7, 361      | 11, 874     | 22, 548     |
| Tennessee.....               | 2, 926      | 2, 827      | 1, 580      | 3, 461      | 6, 538      |
| Alabama.....                 | 3, 206      | 4, 333      | 5, 795      | 6, 625      | 7, 850      |
| Mississippi.....             | 1, 000      | 1, 973      | 2, 922      | 10, 900     | 8, 900      |
| Louisiana.....               | 1, 170      | 2, 040      | 1, 543      | 3, 097      | 3, 408      |
| Texas.....                   | 9, 878      | 10, 186     | 11, 950     | 14, 555     | 19, 073     |
| Arkansas.....                | 715         | 1, 375      | 3, 912      | 4, 363      | 8, 393      |
| Oklahoma.....                |             |             |             | 200         | 442         |
| Indian Territory.....        |             | 800         | 800         | 500         | 2, 458      |
| North Central Division:      |             |             |             |             |             |
| Ohio.....                    | 86, 867     | 95, 618     | 92, 239     | 106, 304    | 132, 267    |
| Indiana.....                 | 66, 320     | 81, 384     | 79, 640     | 100, 224    | 116, 588    |
| Illinois.....                | 70, 202     | 90, 231     | 75, 521     | 87, 844     | 102, 747    |
| Michigan.....                | 134, 213    | 122, 772    | 103, 286    | 156, 304    | 196, 292    |
| Wisconsin.....               | 43, 529     | 48, 480     | 52, 489     | 73, 800     | 82, 668     |
| Minnesota.....               | 42, 941     | 50, 477     | 46, 518     | 52, 315     | 60, 984     |
| Iowa.....                    | 42, 522     | 51, 249     | 59, 356     | 68, 616     | 97, 656     |
| Missouri.....                | 32, 679     | 35, 232     | 40, 320     | 55, 496     | 60, 329     |
| North Dakota.....            | 606         | 508         | 500         | 4, 215      | 6, 111      |
| South Dakota.....            | 1, 926      | 1, 778      | 1, 185      | 2, 892      | 4, 597      |
| Nebraska.....                | 11, 988     | 19, 079     | 20, 626     | 31, 894     | 33, 662     |
| Kansas.....                  | 22, 851     | 35, 046     | 36, 741     | 43, 663     | 47, 296     |
| Western Division:            |             |             |             |             |             |
| Montana.....                 | 1, 825      | 2, 740      | 2, 556      | 3, 496      | 7, 750      |
| Wyoming.....                 | 1, 017      | 1, 017      | 1, 800      | 1, 350      | 600         |
| Colorado.....                |             | 8, 086      | 10, 049     | 13, 673     | 19, 528     |
| New Mexico.....              | 7, 525      | 0           |             | 1, 003      | 650         |
| Arizona.....                 | 524         | 474         | 650         | 1, 130      | 1, 623      |
| Utah.....                    | 1, 641      | 0           | 275         | 200         | 600         |
| Nevada.....                  | 1, 331      | 2, 134      | 1, 900      | 1, 800      | 2, 445      |
| Idaho.....                   | 2, 305      | 1, 251      | 2, 210      | 3, 074      | 2, 394      |
| Washington.....              | 1, 288      | 2, 809      | 1, 938      | 5, 048      | 7, 649      |
| Oregon.....                  | 17, 149     | 1, 895      | 1, 932      | 2, 272      | 2, 333      |
| California.....              |             | 16, 767     | 13, 834     | 16, 899     | 23, 155     |

\* Incomplete returns in 1893.

TABLE 45.—*Review of public high school statistics, 1890-1895.*

## VALUE OF GROUNDS, BUILDINGS, SCIENTIFIC APPARATUS, ETC.

| State or Territory.           | 1890-91.       | 1891-92.       | * 1892-93.     | 1893-94.       | 1894-95.       |
|-------------------------------|----------------|----------------|----------------|----------------|----------------|
| United States .....           | \$52, 634, 684 | \$56, 683, 416 | \$51, 811, 044 | \$64, 638, 091 | \$78, 026, 394 |
| North Atlantic Division ..... | 18, 528, 250   | 18, 637, 494   | 18, 649, 762   | 21, 604, 054   | 25, 629, 370   |
| South Atlantic Division ..... | 1, 228, 040    | 1, 926, 491    | 1, 666, 356    | 1, 624, 165    | 2, 258, 772    |
| South Central Division .....  | 2, 658, 560    | 2, 701, 580    | 2, 191, 607    | 3, 802, 910    | 4, 389, 913    |
| North Central Division .....  | 27, 840, 500   | 29, 023, 703   | 25, 461, 646   | 32, 912, 042   | 40, 175, 663   |
| Western Division .....        | 2, 979, 325    | 4, 394, 148    | 3, 841, 673    | 4, 694, 920    | 5, 572, 676    |
| North Atlantic Division:      |                |                |                |                |                |
| Maine .....                   | 409, 250       | 660, 600       | 658, 450       | 671, 400       | 654, 875       |
| New Hampshire .....           | 1, 755, 500    | 711, 300       | 672, 650       | 654, 500       | 829, 300       |
| Vermont .....                 | 384, 500       | 377, 950       | 680, 450       | 614, 000       | 643, 700       |
| Massachusetts .....           | 4, 120, 005    | 4, 551, 898    | 5, 128, 017    | 5, 626, 370    | 6, 424, 575    |
| Rhode Island .....            | 115, 196       | 95, 196        | 90, 700        | 124, 000       | 135, 000       |
| Connecticut .....             | 1, 375, 102    | 1, 435, 102    | 1, 181, 218    | 1, 507, 775    | 1, 816, 452    |
| New York .....                | 5, 434, 480    | 6, 040, 163    | 6, 016, 229    | 7, 189, 429    | 7, 458, 846    |
| New Jersey .....              | 1, 070, 000    | 1, 091, 600    | 892, 883       | 1, 362, 750    | 1, 657, 768    |
| Pennsylvania .....            | 3, 864, 226    | 3, 673, 775    | 3, 326, 165    | 4, 053, 830    | 6, 008, 864    |
| South Atlantic Division:      |                |                |                |                |                |
| Delaware .....                | 156, 700       | 146, 500       | 43, 500        | 144, 000       | 174, 900       |
| Maryland .....                | 191, 250       | 202, 908       | 187, 500       | 311, 400       | 336, 400       |
| District of Columbia .....    |                | 720, 000       | 600, 000       |                | 235, 600       |
| Virginia .....                | 255, 200       | 217, 450       | 110, 725       | 258, 275       | 402, 290       |
| West Virginia .....           | 33, 940        | 58, 800        | 50, 000        | 185, 260       | 263, 555       |
| North Carolina .....          | 127, 450       | 126, 708       | 137, 501       | 91, 700        | 124, 000       |
| South Carolina .....          | 80, 800        | 93, 300        | 83, 000        | 141, 800       | 132, 070       |
| Georgia .....                 | 239, 500       | 225, 975       | 363, 800       | 399, 630       | 465, 350       |
| Florida .....                 | 143, 200       | 134, 850       | 71, 050        | 92, 100        | 124, 600       |
| South Central Division:       |                |                |                |                |                |
| Kentucky .....                | 574, 705       | 527, 575       | 261, 310       | 629, 750       | 848, 500       |
| Tennessee .....               | 152, 300       | 293, 852       | 323, 572       | 761, 185       | 846, 250       |
| Alabama .....                 | 27, 250        | 73, 850        | 128, 250       | 189, 675       | 170, 250       |
| Mississippi .....             | 80, 200        | 111, 800       | 153, 800       | 278, 650       | 444, 900       |
| Louisiana .....               | 62, 000        | 19, 000        | 3, 500         | 10, 700        | 58, 451        |
| Texas .....                   | 1, 052, 805    | 1, 340, 203    | 1, 083, 275    | 1, 312, 290    | 1, 331, 312    |
| Arkansas .....                | 103, 300       | 235, 300       | 133, 900       | 456, 150       | 297, 950       |
| Oklahoma .....                |                |                |                | 4, 500         | 65, 300        |
| Indian Territory .....        |                | 100, 000       | 100, 000       | 160, 010       | 327, 000       |
| North Central Division:       |                |                |                |                |                |
| Ohio .....                    | 6, 409, 080    | 6, 594, 890    | 4, 470, 991    | 6, 134, 353    | 7, 799, 711    |
| Indiana .....                 | 1, 950, 197    | 1, 905, 797    | 1, 744, 645    | 2, 587, 865    | 3, 449, 850    |
| Illinois .....                | 3, 639, 799    | 3, 884, 355    | 3, 261, 451    | 4, 445, 095    | 5, 311, 450    |
| Michigan .....                | 3, 057, 689    | 3, 535, 261    | 3, 335, 531    | 4, 414, 685    | 4, 969, 244    |
| Wisconsin .....               | 2, 177, 284    | 1, 924, 140    | 1, 941, 275    | 2, 795, 447    | 3, 265, 077    |
| Minnesota .....               | 1, 998, 942    | 1, 892, 690    | 2, 205, 528    | 2, 288, 993    | 2, 817, 710    |
| Iowa .....                    | 3, 151, 410    | 3, 477, 110    | 3, 429, 194    | 4, 072, 555    | 4, 383, 893    |
| Missouri .....                | 1, 175, 311    | 1, 286, 086    | 1, 742, 060    | 2, 174, 772    | 2, 730, 808    |
| North Dakota .....            | 85, 000        | 105, 000       |                | 91, 300        | 185, 200       |
| South Dakota .....            | 557, 800       | 165, 800       | 182, 000       | 218, 425       | 443, 197       |
| Nebraska .....                | 1, 408, 259    | 2, 576, 983    | 1, 268, 071    | 2, 163, 572    | 2, 509, 393    |
| Kansas .....                  | 2, 229, 728    | 1, 675, 588    | 1, 778, 900    | 1, 524, 980    | 2, 319, 150    |
| Western Division:             |                |                |                |                |                |
| Montana .....                 | 165, 000       | 484, 000       | 421, 000       | 656, 000       | 920, 000       |
| Wyoming .....                 | 148, 560       | 148, 500       | 172, 000       | 30, 000        | 75, 000        |
| Colorado .....                |                | 1, 214, 450    | 1, 038, 700    | 939, 900       | 1, 526, 509    |
| New Mexico .....              | 513, 725       | 0              | 3, 500         | 65, 500        | 85, 000        |
| Arizona .....                 | 136, 400       | 120, 000       | 102, 000       | 199, 300       | 208, 000       |
| Utah .....                    | 164, 400       | 490            | 400            | 1, 125         | 30, 000        |
| Nevada .....                  | 191, 000       | 161, 132       | 148, 500       | 146, 000       | 127, 075       |
| Idaho .....                   | 356, 000       | 253, 000       | 92, 000        | 189, 000       | 142, 000       |
| Washington .....              | 225, 000       | 324, 300       | 491, 150       | 990, 000       | 937, 490       |
| Oregon .....                  | 1, 079, 300    | 438, 650       | 286, 473       | 323, 547       | 160, 387       |
| California .....              |                | 1, 249, 716    | 1, 085, 950    | 1, 163, 548    | 1, 361, 125    |

\* Incomplete returns in 1893.



TABLE 46.—Review of public high school statistics, 1890-1895.

## STATE, COUNTY, AND MUNICIPAL APPROPRIATIONS.

| State or Territory.           | 1890-91.    | 1891-92.    | * 1892-93.  | 1893-94.    | 1894-95.    |
|-------------------------------|-------------|-------------|-------------|-------------|-------------|
| United States .....           | \$7,748,004 | \$6,842,634 | \$5,923,800 | \$8,488,181 | \$7,719,199 |
| North Atlantic Division ..... | 1,821,951   | 1,646,450   | 1,474,161   | 2,386,874   | 1,982,732   |
| South Atlantic Division ..... | 276,390     | 294,179     | 340,003     | 368,435     | 432,278     |
| South Central Division .....  | 486,783     | 614,254     | 511,818     | 732,666     | 814,295     |
| North Central Division .....  | 4,690,120   | 3,583,950   | 3,106,584   | 4,259,715   | 3,809,586   |
| Western Division .....        | 702,680     | 699,801     | 491,234     | 740,491     | 680,308     |
| North Atlantic Division:      |             |             |             |             |             |
| Maine .....                   | 70,152      | 72,119      | 67,015      | 454,430     | 62,696      |
| New Hampshire .....           | 33,846      | 37,305      | 46,366      | 30,377      | 39,810      |
| Vermont .....                 | 53,531      | 28,425      | 52,263      | 78,446      | 79,795      |
| Massachusetts .....           | 259,992     | 219,395     | 169,184     | 283,329     | 246,336     |
| Rhode Island .....            | 3,600       | 16,390      | 12,899      | 5,100       | 0           |
| Connecticut .....             | 121,223     | 51,439      | 39,304      | 69,247      | 51,194      |
| New York .....                | 671,917     | 799,446     | 668,327     | 866,548     | 567,804     |
| New Jersey .....              | 173,397     | 142,908     | 123,457     | 156,405     | 394,143     |
| Pennsylvania .....            | 434,293     | 288,113     | 295,346     | 442,992     | 540,954     |
| South Atlantic Division:      |             |             |             |             |             |
| Delaware .....                | 10,990      | 27,829      | 16,492      | 37,316      | 33,534      |
| Maryland .....                | 47,277      | 32,249      | 153,305     | 62,857      | 50,887      |
| District of Columbia .....    |             | 0           |             | 0           |             |
| Virginia .....                | 64,286      | 81,208      | 41,041      | 87,083      | 105,061     |
| West Virginia .....           | 17,523      | 5,109       | 2,500       | 16,538      | 14,088      |
| North Carolina .....          | 52,367      | 49,550      | 20,443      | 10,340      | 24,783      |
| South Carolina .....          | 15,395      | 19,121      | 16,610      | 27,451      | 30,640      |
| Georgia .....                 | 41,477      | 53,163      | 64,402      | 94,885      | 143,645     |
| Florida .....                 | 27,075      | 29,950      | 26,210      | 31,965      | 29,700      |
| South Central Division:       |             |             |             |             |             |
| Kentucky .....                | 120,306     | 89,665      | 33,571      | 65,987      | 140,434     |
| Tennessee .....               | 73,482      | 99,799      | 98,651      | 87,319      | 122,615     |
| Alabama .....                 | 15,228      | 19,897      | 33,856      | 31,303      | 30,507      |
| Mississippi .....             | 25,472      | 28,586      | 27,734      | 67,015      | 77,747      |
| Louisiana .....               | 5,047       | 2,600       | 4,697       | 6,322       | 22,310      |
| Texas .....                   | 210,105     | 339,600     | 275,391     | 336,267     | 338,844     |
| Arkansas .....                | 37,143      | 34,107      | 37,918      | 116,703     | 62,826      |
| Oklahoma .....                |             |             |             | 2,750       | 0           |
| Indian Territory .....        |             | 0           |             | 19,000      | 19,012      |
| North Central Division:       |             |             |             |             |             |
| Ohio .....                    | 1,147,473   | 673,564     | 778,707     | 650,678     | 670,264     |
| Indiana .....                 | 338,296     | 217,331     | 179,352     | 328,090     | 381,740     |
| Illinois .....                | 536,225     | 439,594     | 343,919     | 429,426     | 381,690     |
| Michigan .....                | 409,691     | 525,808     | 607,016     | 690,798     | 559,496     |
| Wisconsin .....               | 301,036     | 328,690     | 43,988      | 389,141     | 312,914     |
| Minnesota .....               | 380,176     | 153,377     | 157,217     | 161,625     | 222,410     |
| Iowa .....                    | 548,165     | 453,234     | 277,814     | 573,443     | 358,234     |
| Missouri .....                | 251,002     | 209,774     | 273,519     | 328,992     | 322,571     |
| North Dakota .....            | 41,022      | 30,927      |             | 23,322      | 58,438      |
| South Dakota .....            | 98,773      | 12,945      | 48,458      | 61,305      | 30,261      |
| Nebraska .....                | 366,586     | 315,880     | 165,265     | 280,188     | 190,103     |
| Kansas .....                  | 241,675     | 222,426     | 231,329     | 342,707     | 321,465     |
| Western Division:             |             |             |             |             |             |
| Montana .....                 | 48,345      | 28,045      | 32,250      | 42,509      | 65,455      |
| Wyoming .....                 | 32,080      | 32,080      | 4,391       | 144         | 1,125       |
| Colorado .....                |             | 87,433      | 66,146      | 87,242      | 119,602     |
| New Mexico .....              | 98,690      | 0           |             | 6,300       | 16,500      |
| Arizona .....                 | 33,400      | 23,500      | 5,500       | 450         | 1,800       |
| Utah .....                    | 56,169      | 7,000       |             | 0           | 6,000       |
| Nevada .....                  | 12,200      | 73,121      | 63,089      | 64,834      | 49,225      |
| Idaho .....                   | 49,910      | 22,200      |             | 119,250     | 20,600      |
| Washington .....              | 19,139      | 29,063      | 44,274      | 72,788      | 81,789      |
| Oregon .....                  | 352,747     | 14,732      | 15,887      | 25,088      | 25,634      |
| California .....              |             | 382,027     | 269,697     | 321,886     | 301,978     |

\* Incomplete returns in 1893.

TABLE 47.—*Review of public high school statistics, 1890-1895.*

## RECEIPTS FROM TUITION AND INCIDENTAL FEES.

| State or Territory.           | 1890-91.   | 1891-92.   | 1892-93.   | 1893-94.   | 1894-95.      |
|-------------------------------|------------|------------|------------|------------|---------------|
| United States .....           | \$844, 261 | \$619, 639 | \$616, 350 | \$828, 887 | \$1, 018, 631 |
| North Atlantic Division ..... | 405, 511   | 181, 194   | 192, 555   | 252, 746   | 269, 883      |
| South Atlantic Division ..... | 39, 849    | 41, 549    | 59, 734    | 71, 554    | 102, 654      |
| South Central Division .....  | 67, 995    | 83, 148    | 85, 420    | 153, 948   | 201, 793      |
| North Central Division .....  | 319, 406   | 299, 034   | 250, 382   | 325, 858   | 413, 840      |
| Western Division .....        | 11, 510    | 14, 724    | 28, 259    | 23, 781    | 31, 061       |
| North Atlantic Division:      |            |            |            |            |               |
| Maine .....                   | 4, 557     | 4, 703     | 4, 665     | 4, 820     | 9, 197        |
| New Hampshire .....           | 3, 834     | 4, 512     | 4, 889     | 4, 787     | 5, 018        |
| Vermont .....                 | 9, 408     | 11, 077    | 12, 162    | 19, 154    | 11, 323       |
| Massachusetts .....           | 17, 131    | 16, 859    | 20, 781    | 25, 138    | 48, 550       |
| Rhode Island .....            | 1, 444     | 2, 722     | 1, 664     | 2, 635     | 3, 870        |
| Connecticut .....             | 12, 898    | 15, 399    | 12, 116    | 14, 621    | 12, 451       |
| New York .....                | 328, 989   | 101, 574   | 101, 676   | 123, 740   | 119, 124      |
| New Jersey .....              | 4, 959     | 6, 858     | 10, 206    | 35, 294    | 12, 211       |
| Pennsylvania .....            | 22, 291    | 17, 490    | 24, 396    | 32, 157    | 48, 139       |
| South Atlantic Division:      |            |            |            |            |               |
| Delaware .....                | 715        | 736        | 550        | 855        | 963           |
| Maryland .....                | 2, 237     | 1, 765     | 14, 331    | 3, 008     | 15, 225       |
| District of Columbia .....    | 0          | 0          | 0          | 0          | 0             |
| Virginia .....                | 7, 184     | 7, 593     | 4, 241     | 8, 797     | 13, 106       |
| West Virginia .....           | 240        | 240        | 240        | 756        | 330           |
| North Carolina .....          | 2, 959     | 2, 952     | 1, 543     | 3, 464     | 6, 514        |
| South Carolina .....          | 3, 073     | 3, 035     | 3, 520     | 13, 588    | 17, 318       |
| Georgia .....                 | 20, 115    | 23, 522    | 35, 219    | 40, 156    | 46, 669       |
| Florida .....                 | 3, 556     | 1, 696     | 320        | 900        | 1, 929        |
| South Central Division:       |            |            |            |            |               |
| Kentucky .....                | 15, 540    | 14, 364    | 7, 098     | 14, 700    | 18, 934       |
| Tennessee .....               | 7, 725     | 11, 369    | 8, 011     | 22, 833    | 45, 225       |
| Alabama .....                 | 4, 365     | 5, 950     | 8, 061     | 16, 246    | 31, 012       |
| Mississippi .....             | 5, 961     | 11, 909    | 21, 141    | 27, 025    | 28, 991       |
| Louisiana .....               | 200        | 375        | 375        | 975        | 4, 320        |
| Texas .....                   | 29, 569    | 34, 533    | 37, 488    | 58, 278    | 62, 258       |
| Arkansas .....                | 4, 835     | 4, 823     | 2, 646     | 4, 671     | 10, 853       |
| Oklahoma .....                | 0          | 0          | 0          | 220        | 200           |
| Indian Territory .....        | 0          | 0          | 0          | 9, 000     | 0             |
| North Central Division:       |            |            |            |            |               |
| Ohio .....                    | 89, 725    | 77, 738    | 53, 365    | 64, 323    | 89, 413       |
| Indiana .....                 | 15, 927    | 16, 431    | 11, 367    | 32, 352    | 59, 783       |
| Illinois .....                | 47, 029    | 48, 514    | 39, 526    | 64, 768    | 63, 416       |
| Michigan .....                | 36, 891    | 43, 127    | 52, 896    | 51, 001    | 64, 439       |
| Wisconsin .....               | 38, 226    | 22, 488    | 22, 581    | 31, 453    | 31, 180       |
| Minnesota .....               | 7, 027     | 6, 233     | 6, 420     | 4, 542     | 8, 931        |
| Iowa .....                    | 27, 390    | 38, 391    | 28, 598    | 33, 775    | 40, 689       |
| Missouri .....                | 8, 872     | 10, 235    | 12, 507    | 14, 562    | 21, 390       |
| North Dakota .....            | 661        | 661        | 48         | 541        | 1, 062        |
| South Dakota .....            | 855        | 540        | 1, 237     | 1, 633     | 3, 997        |
| Nebraska .....                | 8, 886     | 19, 398    | 9, 069     | 10, 714    | 12, 863       |
| Kansas .....                  | 37, 947    | 15, 278    | 12, 768    | 14, 194    | 16, 677       |
| Western Division:             |            |            |            |            |               |
| Montana .....                 | 410        | 500        | 284        | 445        | 309           |
| Wyoming .....                 | 0          | 0          | 0          | 0          | 0             |
| Colorado .....                | 744        | 744        | 993        | 1, 188     | 3, 212        |
| New Mexico .....              | 751        | 0          | 0          | 800        | 975           |
| Arizona .....                 | 0          | 0          | 303        | 6, 998     | 9, 398        |
| Utah .....                    | 175        | 0          | 0          | 0          | 0             |
| Nevada .....                  | 336        | 275        | 3, 779     | 108        | 374           |
| Idaho .....                   | 637        | 161        | 0          | 100        | 225           |
| Washington .....              | 1, 908     | 283        | 475        | 1, 066     | 1, 297        |
| Oregon .....                  | 7, 243     | 2, 350     | 2, 133     | 1, 522     | 475           |
| California .....              | 0          | 10, 411    | 20, 192    | 11, 554    | 14, 796       |

TABLE 48—*Review of public high school statistics, 1890-1895.*

## TOTAL INCOME FROM ALL SOURCES.

| State or Territory.          | 1890-91.      | 1891-92.      | 1892-93.      | 1893-94.       | 1894-95.       |
|------------------------------|---------------|---------------|---------------|----------------|----------------|
| United States .....          | \$2, 820, 918 | \$7, 462, 273 | \$8, 374, 104 | \$12, 274, 057 | \$13, 508, 797 |
| North Atlantic Division..... | 824, 327      | 1, 827, 644   | 2, 576, 018   | 3, 561, 686    | 3, 696, 637    |
| South Atlantic Division..... | 213, 250      | 339, 718      | 404, 817      | 525, 020       | 732, 045       |
| South Central Division.....  | 49, 811       | 697, 402      | 616, 618      | 961, 526       | 1, 221, 688    |
| North Central Division.....  | 1, 618, 036   | 3, 882, 981   | 4, 235, 357   | 6, 206, 184    | 6, 863, 021    |
| Western Division.....        | 85, 464       | 714, 525      | 541, 264      | 1, 019, 641    | 996, 406       |
| North Atlantic Division:     |               |               |               |                |                |
| Maine.....                   | 11, 896       | 76, 822       | 81, 735       | 477, 722       | 90, 294        |
| New Hampshire.....           | 1, 800        | 41, 817       | 220, 480      | 51, 636        | 57, 693        |
| Vermont.....                 | 27, 647       | 39, 502       | 102, 640      | 95, 160        | 107, 101       |
| Massachusetts.....           | 28, 935       | 236, 254      | 295, 030      | 403, 480       | 385, 778       |
| Rhode Island.....            | 1, 500        | 19, 022       | 14, 563       | 14, 592        | 14, 720        |
| Connecticut.....             | 27, 569       | 66, 838       | 72, 084       | 90, 305        | 93, 430        |
| New York.....                | 520, 511      | 892, 020      | 1, 135, 925   | 1, 376, 457    | 1, 396, 750    |
| New Jersey.....              | 2, 571        | 149, 766      | 133, 663      | 235, 426       | 470, 720       |
| Pennsylvania.....            | 201, 838      | 305, 603      | 519, 838      | 826, 848       | 1, 080, 151    |
| South Atlantic Division:     |               |               |               |                |                |
| Delaware.....                | 4, 469        | 28, 565       | 17, 042       | 43, 360        | 43, 101        |
| Maryland.....                | 61, 567       | 34, 014       | 167, 636      | 93, 941        | 190, 893       |
| District of Columbia.....    |               | 0             |               | 0              |                |
| Virginia.....                | 6, 115        | 88, 801       | 45, 282       | 96, 908        | 123, 613       |
| West Virginia.....           |               | 5, 349        | 2, 500        | 27, 657        | 19, 833        |
| North Carolina.....          | 3, 627        | 52, 502       | 21, 986       | 14, 104        | 31, 597        |
| South Carolina.....          | 5, 460        | 22, 156       | 25, 210       | 41, 822        | 51, 933        |
| Georgia.....                 | 126, 942      | 76, 715       | 98, 621       | 170, 270       | 224, 299       |
| Florida.....                 | 5, 070        | 31, 646       | 26, 540       | 36, 949        | 43, 716        |
| South Central Division:      |               |               |               |                |                |
| Kentucky.....                | 8, 224        | 104, 029      | 40, 609       | 91, 436        | 182, 974       |
| Tennessee.....               | 1, 409        | 111, 168      | 106, 662      | 117, 129       | 180, 676       |
| Alabama.....                 | 1, 847        | 25, 847       | 42, 517       | 51, 596        | 64, 239        |
| Mississippi.....             | 2, 240        | 40, 495       | 48, 875       | 99, 791        | 142, 393       |
| Louisiana.....               | 7, 232        | 2, 800        | 5, 072        | 7, 340         | 30, 560        |
| Texas.....                   | 19, 891       | 374, 133      | 331, 875      | 410, 233       | 445, 900       |
| Arkansas.....                | 8, 995        | 38, 930       | 40, 978       | 140, 881       | 89, 999        |
| Oklahoma.....                |               |               |               | 15, 120        | 13, 200        |
| Indian Territory.....        |               | 0             |               | 28, 000        | 71, 727        |
| North Central Division:      |               |               |               |                |                |
| Ohio.....                    | 233, 426      | 751, 202      | 832, 072      | 863, 595       | 1, 049, 013    |
| Indiana.....                 | 80, 505       | 233, 762      | 190, 719      | 406, 020       | 528, 334       |
| Illinois.....                | 320, 323      | 488, 508      | 404, 890      | 687, 493       | 802, 369       |
| Michigan.....                | 129, 824      | 568, 915      | 795, 787      | 1, 134, 256    | 1, 095, 331    |
| Wisconsin.....               | 106, 069      | 351, 178      | 404, 889      | 593, 214       | 665, 524       |
| Minnesota.....               | 84, 413       | 159, 610      | 248, 451      | 276, 165       | 414, 217       |
| Iowa.....                    | 509, 977      | 491, 625      | 457, 011      | 827, 686       | 689, 299       |
| Missouri.....                | 41, 713       | 220, 009      | 286, 026      | 463, 087       | 534, 098       |
| North Dakota.....            | 5, 326        | 31, 588       | 48            | 25, 581        | 75, 281        |
| South Dakota.....            | 4, 000        | 13, 485       | 49, 615       | 77, 796        | 82, 135        |
| Nebraska.....                | 65, 752       | 335, 278      | 321, 672      | 438, 448       | 445, 816       |
| Kansas.....                  | 66, 168       | 237, 704      | 244, 097      | 412, 243       | 481, 604       |
| Western Division:            |               |               |               |                |                |
| Montana.....                 | 4, 825        | 28, 545       | 32, 634       | 137, 270       | 170, 056       |
| Wyoming.....                 | 36, 774       | 32, 080       | 4, 391        | 1, 425         | 1, 200         |
| Colorado.....                |               | 88, 177       | 67, 139       | 166, 668       | 153, 221       |
| New Mexico.....              | 10, 500       | 0             |               | 13, 400        | 18, 475        |
| Arizona.....                 |               | 23, 500       | 5, 803        | 7, 448         | 16, 089        |
| Utah.....                    | 4, 818        | 7, 000        |               | 0              | 6, 000         |
| Nevada.....                  | 88            | 73, 396       | 66, 868       | 64, 942        | 40, 899        |
| Idaho.....                   | 2, 800        | 22, 261       |               | 119, 350       | 40, 700        |
| Washington.....              | 7, 099        | 29, 346       | 58, 156       | 119, 689       | 162, 999       |
| Oregon.....                  | 18, 560       | 17, 082       | 26, 384       | 30, 653        | 28, 816        |
| California.....              |               | 393, 038      | 279, 889      | 358, 805       | 357, 951       |

TABLE 49.—*Review of private high school statistics, 1890-1895.*

NUMBER OF SCHOOLS AND NUMBER OF INSTRUCTORS.

| State or Territory.         | 1890-91. |              | 1891-92. |              | *1892-93. |              | 1893-94. |              | 1894-95. |              |
|-----------------------------|----------|--------------|----------|--------------|-----------|--------------|----------|--------------|----------|--------------|
|                             | Schools. | Instructors. | Schools. | Instructors. | Schools.  | Instructors. | Schools. | Instructors. | Schools. | Instructors. |
| United States.....          | 1,714    | 6,231        | 1,549    | 7,093        | 1,434     | 6,261        | 1,982    | 8,007        | 2,180    | 8,559        |
| North Atlantic Division.... | 531      | 2,542        | 528      | 2,988        | 518       | 2,814        | 662      | 3,429        | 673      | 3,538        |
| South Atlantic Division.... | 363      | 1,633        | 302      | 1,060        | 267       | 873          | 406      | 1,245        | 467      | 1,413        |
| South Central Division....  | 380      | 1,006        | 335      | 1,134        | 282       | 925          | 435      | 1,328        | 524      | 1,472        |
| North Central Division....  | 305      | 1,243        | 272      | 1,386        | 275       | 1,261        | 354      | 1,527        | 385      | 1,641        |
| Western Division.....       | 135      | 407          | 112      | 525          | 92        | 388          | 125      | 478          | 131      | 945          |
| North Atlantic Division:    |          |              |          |              |           |              |          |              |          |              |
| Maine.....                  | 25       | 93           | 27       | 109          | 29        | 114          | 36       | 156          | 39       | 173          |
| New Hampshire.....          | 25       | 121          | 24       | 129          | 25        | 130          | 26       | 130          | 25       | 135          |
| Vermont.....                | 22       | 96           | 22       | 122          | 22        | 118          | 27       | 157          | 25       | 127          |
| Massachusetts.....          | 75       | 381          | 79       | 468          | 80        | 453          | 94       | 518          | 95       | 590          |
| Rhode Island.....           | 5        | 30           | 6        | 45           | 6         | 43           | 9        | 63           | 12       | 61           |
| Connecticut.....            | 40       | 127          | 37       | 127          | 38        | 144          | 61       | 269          | 64       | 276          |
| New York.....               | 183      | 939          | 177      | 1,030        | 178       | 992          | 201      | 1,037        | 204      | 1,125        |
| New Jersey.....             | 51       | 232          | 55       | 343          | 47        | 264          | 69       | 328          | 69       | 352          |
| Pennsylvania.....           | 105      | 563          | 101      | 615          | 93        | 556          | 139      | 771          | 140      | 696          |
| South Atlantic Division:    |          |              |          |              |           |              |          |              |          |              |
| Delaware.....               | 5        | 21           | 4        | 19           | 4         | 13           | 6        | 27           | 5        | 24           |
| Maryland.....               | 31       | 141          | 31       | 162          | 27        | 118          | 36       | 167          | 45       | 216          |
| District of Columbia.....   | 11       | 55           | 11       | 77           | 11        | 89           | 14       | 72           | 15       | 94           |
| Virginia.....               | 63       | 194          | 59       | 214          | 52        | 166          | 86       | 245          | 93       | 260          |
| West Virginia.....          | 2        | 15           | 3        | 19           | 3         | 11           | 9        | 30           | 15       | 40           |
| North Carolina.....         | 106      | 262          | 81       | 241          | 73        | 233          | 111      | 307          | 142      | 355          |
| South Carolina.....         | 40       | 98           | 35       | 106          | 32        | 89           | 45       | 120          | 45       | 123          |
| Georgia.....                | 94       | 222          | 68       | 192          | 58        | 132          | 89       | 247          | 95       | 262          |
| Florida.....                | 11       | 25           | 10       | 30           | 7         | 22           | 10       | 30           | 12       | 39           |
| South Central Division:     |          |              |          |              |           |              |          |              |          |              |
| Kentucky.....               | 57       | 158          | 46       | 155          | 42        | 148          | 73       | 203          | 86       | 279          |
| Tennessee.....              | 96       | 246          | 83       | 271          | 69        | 219          | 101      | 306          | 129      | 344          |
| Alabama.....                | 53       | 123          | 42       | 108          | 33        | 92           | 55       | 149          | 79       | 181          |
| Mississippi.....            | 54       | 131          | 68       | 204          | 53        | 149          | 64       | 153          | 74       | 181          |
| Louisiana.....              | 30       | 93           | 28       | 124          | 22        | 75           | 35       | 130          | 31       | 109          |
| Texas.....                  | 60       | 199          | 46       | 201          | 42        | 176          | 68       | 283          | 77       | 263          |
| Arkansas.....               | 21       | 31           | 16       | 43           | 16        | 46           | 33       | 89           | 37       | 92           |
| Oklahoma.....               |          |              |          |              |           |              | 1        | 2            | 2        | 7            |
| Indian Territory.....       | 9        | 25           | 6        | 18           | 5         | 20           | 5        | 13           | 6        | 16           |
| North Central Division:     |          |              |          |              |           |              |          |              |          |              |
| Ohio.....                   | 52       | 270          | 45       | 266          | 44        | 212          | 52       | 249          | 56       | 247          |
| Indiana.....                | 18       | 69           | 15       | 71           | 20        | 74           | 22       | 73           | 25       | 107          |
| Illinois.....               | 47       | 213          | 36       | 222          | 41        | 201          | 51       | 255          | 55       | 291          |
| Michigan.....               | 15       | 70           | 16       | 74           | 14        | 59           | 17       | 71           | 19       | 85           |
| Wisconsin.....              | 22       | 79           | 20       | 94           | 20        | 99           | 27       | 125          | 28       | 129          |
| Minnesota.....              | 18       | 64           | 18       | 78           | 18        | 86           | 24       | 107          | 28       | 139          |
| Iowa.....                   | 32       | 111          | 30       | 114          | 27        | 106          | 38       | 152          | 40       | 157          |
| Missouri.....               | 64       | 247          | 57       | 310          | 55        | 251          | 78       | 306          | 85       | 300          |
| North Dakota.....           | 3        | 10           | 3        | 15           | 2         | 9            | 3        | 8            | 4        | 10           |
| South Dakota.....           | 5        | 14           | 5        | 18           | 4         | 21           | 6        | 25           | 7        | 23           |
| Nebraska.....               | 13       | 51           | 12       | 60           | 14        | 73           | 15       | 62           | 14       | 62           |
| Kansas.....                 | 16       | 45           | 15       | 64           | 16        | 70           | 21       | 94           | 24       | 91           |
| Western Division:           |          |              |          |              |           |              |          |              |          |              |
| Montana.....                | 6        | 12           | 6        | 17           | 3         | 4            | 4        | 6            | 4        | 8            |
| Wyoming.....                | 1        | 3            |          |              | 1         | 3            | 1        | 4            | 2        | 6            |
| Colorado.....               | 10       | 41           | 7        | 51           | 5         | 33           | 7        | 33           | 6        | 20           |
| New Mexico.....             | 8        | 17           | 2        | 3            | 3         | 5            | 5        | 14           | 6        | 13           |
| Arizona.....                |          |              |          |              |           |              |          |              |          |              |
| Utah.....                   | 17       | 44           | 13       | 56           | 11        | 40           | 19       | 87           | 17       | 71           |
| Nevada.....                 | 1        | 4            | 1        | 4            |           |              | 2        | 5            | 1        | 1            |
| Idaho.....                  | 1        | 5            |          |              |           |              | 1        | 1            | 2        | 4            |
| Washington.....             | 18       | 55           | 15       | 58           | 11        | 52           | 12       | 43           | 13       | 56           |
| Oregon.....                 | 17       | 55           | 14       | 67           | 12        | 51           | 13       | 50           | 14       | 55           |
| California.....             | 56       | 171          | 54       | 269          | 46        | 200          | 61       | 235          | 66       | 261          |

\* Incomplete returns for 1893.



TABLE 50.—Review of private high school statistics, 1890-1895.

## MALE AND FEMALE INSTRUCTORS.

| State or Territory.          | 1890-91. |              | 1891-92. |              | 1892-93. |              | 1893-94. |              | 1894-95. |              |
|------------------------------|----------|--------------|----------|--------------|----------|--------------|----------|--------------|----------|--------------|
|                              | Male.    | Fe-<br>male. | Male.    | Fe-<br>male. | Male.    | Fe-<br>male. | Male.    | Fe-<br>male. | Male.    | Fe-<br>male. |
| United States.....           | 3,041    | 3,190        | 3,352    | 3,741        | 3,038    | 3,223        | 3,735    | 4,272        | 3,991    | 4,568        |
| North Atlantic Division..... | 1,244    | 1,298        | 1,420    | 1,568        | 1,341    | 1,473        | 1,589    | 1,840        | 1,661    | 1,877        |
| South Atlantic Division..... | 549      | 484          | 545      | 515          | 465      | 408          | 575      | 670          | 656      | 757          |
| South Central Division.....  | 468      | 538          | 510      | 624          | 430      | 495          | 616      | 712          | 712      | 760          |
| North Central Division.....  | 579      | 661          | 640      | 746          | 619      | 642          | 730      | 797          | 740      | 901          |
| Western Division.....        | 201      | 206          | 237      | 288          | 183      | 205          | 225      | 253          | 222      | 273          |
| North Atlantic Division:     |          |              |          |              |          |              |          |              |          |              |
| Maine.....                   | 40       | 53           | 47       | 62           | 43       | 71           | 69       | 87           | 72       | 101          |
| New Hampshire.....           | 72       | 49           | 78       | 51           | 76       | 54           | 84       | 46           | 86       | 49           |
| Vermont.....                 | 42       | 54           | 51       | 71           | 54       | 64           | 65       | 92           | 51       | 76           |
| Massachusetts.....           | 170      | 211          | 202      | 266          | 187      | 266          | 205      | 313          | 244      | 346          |
| Rhode Island.....            | 16       | 14           | 31       | 14           | 19       | 24           | 34       | 29           | 25       | 39           |
| Connecticut.....             | 61       | 66           | 56       | 71           | 58       | 86           | 117      | 152          | 108      | 168          |
| New York.....                | 441      | 498          | 491      | 539          | 475      | 517          | 478      | 559          | 553      | 572          |
| New Jersey.....              | 134      | 118          | 174      | 169          | 146      | 118          | 172      | 156          | 178      | 174          |
| Pennsylvania.....            | 268      | 235          | 290      | 325          | 283      | 273          | 365      | 406          | 344      | 352          |
| South Atlantic Division:     |          |              |          |              |          |              |          |              |          |              |
| Delaware.....                | 10       | 11           | 10       | 9            | 7        | 6            | 10       | 17           | 10       | 14           |
| Maryland.....                | 88       | 53           | 88       | 74           | 57       | 61           | 56       | 111          | 90       | 126          |
| District of Columbia.....    | 38       | 17           | 40       | 37           | 46       | 43           | 25       | 47           | 25       | 63           |
| Virginia.....                | 99       | 95           | 110      | 104          | 106      | 60           | 132      | 113          | 132      | 128          |
| West Virginia.....           | 5        | 10           | 8        | 11           | 5        | 6            | 11       | 19           | 20       | 20           |
| North Carolina.....          | 146      | 116          | 140      | 101          | 122      | 111          | 156      | 151          | 187      | 161          |
| South Carolina.....          | 51       | 47           | 55       | 51           | 44       | 45           | 57       | 63           | 51       | 69           |
| Georgia.....                 | 105      | 117          | 82       | 110          | 66       | 66           | 117      | 130          | 129      | 131          |
| Florida.....                 | 7        | 18           | 12       | 18           | 12       | 10           | 11       | 19           | 9        | 30           |
| South Central Division:      |          |              |          |              |          |              |          |              |          |              |
| Kentucky.....                | 68       | 99           | 58       | 17           | 67       | 81           | 90       | 113          | 116      | 163          |
| Tennessee.....               | 119      | 127          | 138      | 133          | 110      | 109          | 155      | 151          | 189      | 155          |
| Alabama.....                 | 66       | 57           | 52       | 56           | 47       | 45           | 75       | 74           | 95       | 86           |
| Mississippi.....             | 68       | 63           | 107      | 97           | 70       | 79           | 78       | 75           | 91       | 99           |
| Louisiana.....               | 32       | 61           | 30       | 94           | 18       | 57           | 27       | 103          | 24       | 85           |
| Texas.....                   | 93       | 106          | 86       | 115          | 89       | 96           | 131      | 152          | 129      | 134          |
| Arkansas.....                | 13       | 18           | 28       | 15           | 23       | 18           | 56       | 33           | 59       | 33           |
| Oklahoma.....                |          |              |          |              |          |              | 0        | 2            | 2        | 5            |
| Indian Territory.....        | 9        | 16           | 9        | 9            | 10       | 10           | 4        | 9            | 7        | 9            |
| North Central Division:      |          |              |          |              |          |              |          |              |          |              |
| Ohio.....                    | 149      | 121          | 131      | 135          | 116      | 96           | 111      | 138          | 101      | 146          |
| Indiana.....                 | 25       | 44           | 23       | 48           | 29       | 45           | 21       | 52           | 39       | 68           |
| Illinois.....                | 86       | 127          | 96       | 126          | 86       | 115          | 108      | 147          | 122      | 163          |
| Michigan.....                | 22       | 48           | 27       | 47           | 24       | 35           | 26       | 45           | 26       | 59           |
| Wisconsin.....               | 51       | 28           | 48       | 46           | 57       | 42           | 69       | 56           | 89       | 40           |
| Minnesota.....               | 31       | 33           | 42       | 36           | 42       | 44           | 58       | 49           | 62       | 77           |
| Iowa.....                    | 51       | 60           | 61       | 53           | 56       | 50           | 76       | 76           | 72       | 85           |
| Missouri.....                | 110      | 137          | 141      | 169          | 129      | 122          | 163      | 143          | 141      | 159          |
| North Dakota.....            | 4        | 6            | 5        | 10           | 2        | 7            | 4        | 4            | 4        | 6            |
| South Dakota.....            | 7        | 7            | 10       | 8            | 7        | 14           | 10       | 15           | 9        | 14           |
| Nebraska.....                | 16       | 35           | 19       | 41           | 31       | 42           | 34       | 28           | 33       | 29           |
| Kansas.....                  | 27       | 18           | 37       | 27           | 40       | 30           | 50       | 44           | 42       | 49           |
| Western Division:            |          |              |          |              |          |              |          |              |          |              |
| Montana.....                 | 2        | 10           | 2        | 15           | 0        | 4            | 1        | 5            | 2        | 6            |
| Wyoming.....                 | 0        | 3            |          |              | 0        | 3            | 0        | 4            | 2        | 4            |
| Colorado.....                | 26       | 15           | 27       | 24           | 15       | 18           | 21       | 12           | 19       | 10           |
| New Mexico.....              | 9        | 8            | 1        | 2            | 3        | 2            | 6        | 8            | 7        | 6            |
| Arizona.....                 |          |              |          |              |          |              |          |              |          |              |
| Utah.....                    | 27       | 17           | 37       | 19           | 27       | 13           | 59       | 23           | 45       | 26           |
| Nevada.....                  | 0        | 4            | 1        | 3            |          |              | 0        | 5            | 0        | 1            |
| Idaho.....                   | 2        | 3            |          |              |          |              | 1        | 0            | 2        | 2            |
| Washington.....              | 28       | 27           | 24       | 34           | 19       | 33           | 14       | 29           | 17       | 39           |
| Oregon.....                  | 29       | 26           | 34       | 33           | 25       | 26           | 26       | 21           | 23       | 32           |
| California.....              | 78       | 93           | 111      | 158          | 94       | 106          | 97       | 138          | 114      | 147          |

TABLE 51.—*Review of private high school statistics, 1890-1895.*

## SECONDARY STUDENTS AND ELEMENTARY PUPILS.

| State or Territory.         | 1890-91.   |             | 1891-92.   |             | *1892-93.  |             | 1893-94.   |             | 1894-95.   |             |
|-----------------------------|------------|-------------|------------|-------------|------------|-------------|------------|-------------|------------|-------------|
|                             | Secondary. | Elementary. | Secondary. | Elementary. | Secondary. | Elementary. | Secondary. | Elementary. | Secondary. | Elementary. |
| United States.....          | 98,400     | 79,758      | 100,739    | 74,059      | 96,147     | 64,180      | 118,645    | 94,604      | 118,347    | 113,878     |
| North Atlantic Division.... | 36,135     | 14,852      | 38,585     | 15,470      | 38,139     | 17,002      | 44,283     | 24,249      | 42,498     | 26,250      |
| South Atlantic Division.... | 16,937     | 17,506      | 15,847     | 14,810      | 13,522     | 12,897      | 19,785     | 19,612      | 20,970     | 25,386      |
| South Central Division..... | 18,390     | 24,447      | 19,553     | 21,881      | 17,243     | 15,193      | 24,459     | 24,937      | 27,072     | 33,584      |
| North Central Division..... | 21,480     | 13,445      | 21,101     | 12,788      | 22,346     | 12,489      | 23,971     | 17,066      | 21,774     | 19,503      |
| Western Division.....       | 5,458      | 9,508       | 5,653      | 9,110       | 4,897      | 6,599       | 6,147      | 8,740       | 6,033      | 9,155       |
| North Atlantic Division:    |            |             |            |             |            |             |            |             |            |             |
| Maine.....                  | 2,001      | 194         | 2,468      | 250         | 2,415      | 276         | 3,001      | 335         | 3,322      | 517         |
| New Hampshire.....          | 1,924      | 560         | 1,987      | 356         | 2,180      | 325         | 1,892      | 513         | 1,964      | 382         |
| Vermont.....                | 2,151      | 317         | 2,312      | 318         | 2,347      | 245         | 2,442      | 320         | 2,247      | 867         |
| Massachusetts.....          | 5,100      | 904         | 5,428      | 1,087       | 5,552      | 914         | 6,065      | 1,307       | 6,140      | 1,536       |
| Rhode Island.....           | 410        | 199         | 669        | 198         | 736        | 340         | 819        | 751         | 644        | 546         |
| Connecticut.....            | 1,576      | 499         | 1,470      | 629         | 1,779      | 939         | 2,821      | 1,077       | 2,875      | 1,289       |
| New York.....               | 12,246     | 8,143       | 11,243     | 8,467       | 11,753     | 8,950       | 12,270     | 11,938      | 11,194     | 11,943      |
| New Jersey.....             | 3,380      | 1,415       | 3,889      | 1,501       | 3,472      | 1,493       | 4,459      | 2,412       | 4,029      | 2,614       |
| Pennsylvania.....           | 7,347      | 2,621       | 9,119      | 2,664       | 7,905      | 3,520       | 10,544     | 5,516       | 10,083     | 6,556       |
| South Atlantic Division:    |            |             |            |             |            |             |            |             |            |             |
| Delaware.....               | 297        | 288         | 300        | 277         | 278        | 245         | 373        | 205         | 291        | 244         |
| Maryland.....               | 1,699      | 661         | 1,751      | 704         | 1,541      | 621         | 1,934      | 1,061       | 2,006      | 2,014       |
| District of Columbia.....   | 769        | 460         | 755        | 522         | 1,005      | 496         | 887        | 783         | 775        | 1,264       |
| Virginia.....               | 3,081      | 1,416       | 2,674      | 2,045       | 2,225      | 1,808       | 3,361      | 1,996       | 3,660      | 2,438       |
| West Virginia.....          | 200        | 18          | 240        | 50          | 159        | 166         | 581        | 482         | 723        | 422         |
| North Carolina.....         | 4,777      | 4,619       | 4,094      | 3,710       | 3,927      | 2,844       | 5,652      | 4,709       | 6,272      | 6,586       |
| South Carolina.....         | 1,792      | 2,559       | 1,766      | 1,648       | 1,634      | 1,879       | 1,835      | 2,351       | 1,982      | 2,653       |
| Georgia.....                | 4,128      | 6,687       | 3,992      | 4,720       | 2,455      | 4,224       | 4,790      | 7,177       | 4,787      | 8,594       |
| Florida.....                | 254        | 798         | 275        | 1,134       | 318        | 614         | 372        | 848         | 474        | 1,171       |
| South Central Division:     |            |             |            |             |            |             |            |             |            |             |
| Kentucky.....               | 2,603      | 2,526       | 2,046      | 1,981       | 2,150      | 1,719       | 3,136      | 2,951       | 4,944      | 4,210       |
| Tennessee.....              | 4,648      | 5,950       | 5,160      | 5,164       | 4,513      | 2,968       | 5,812      | 5,793       | 6,595      | 9,293       |
| Alabama.....                | 2,563      | 3,076       | 2,188      | 2,195       | 1,605      | 1,644       | 2,715      | 3,013       | 3,304      | 4,172       |
| Mississippi.....            | 2,243      | 3,771       | 3,794      | 5,123       | 3,208      | 3,502       | 3,046      | 3,846       | 3,446      | 4,977       |
| Louisiana.....              | 1,308      | 1,424       | 1,250      | 1,276       | 992        | 983         | 1,595      | 2,097       | 1,539      | 2,326       |
| Texas.....                  | 4,121      | 5,757       | 3,843      | 4,872       | 3,574      | 3,201       | 6,013      | 4,893       | 5,285      | 5,779       |
| Arkansas.....               | 640        | 1,099       | 1,014      | 862         | 908        | 812         | 1,879      | 1,682       | 1,716      | 2,014       |
| Oklahoma.....               |            |             |            |             |            |             | 15         | 25          | 59         | 57          |
| Indian Territory.....       | 253        | 834         | 258        | 408         | 293        | 334         | 248        | 727         | 184        | 756         |
| North Central Division:     |            |             |            |             |            |             |            |             |            |             |
| Ohio.....                   | 5,938      | 2,030       | 4,799      | 1,738       | 4,564      | 1,851       | 4,696      | 1,875       | 2,448      | 3,038       |
| Indiana.....                | 955        | 1,124       | 833        | 516         | 1,390      | 873         | 1,412      | 1,350       | 1,637      | 1,610       |
| Illinois.....               | 3,617      | 2,159       | 3,518      | 1,592       | 3,943      | 1,629       | 3,169      | 2,734       | 3,934      | 3,083       |
| Michigan.....               | 1,302      | 1,300       | 1,131      | 1,353       | 1,050      | 1,081       | 1,111      | 2,509       | 1,067      | 2,396       |
| Wisconsin.....              | 1,112      | 918         | 1,105      | 1,312       | 1,027      | 1,421       | 1,923      | 1,090       | 1,576      | 1,132       |
| Minnesota.....              | 1,201      | 615         | 1,332      | 918         | 1,353      | 733         | 1,468      | 1,132       | 1,416      | 1,379       |
| Iowa.....                   | 2,100      | 1,448       | 2,150      | 1,736       | 2,398      | 1,093       | 2,502      | 1,993       | 3,042      | 1,473       |
| Missouri.....               | 3,986      | 2,468       | 4,015      | 2,336       | 4,258      | 2,353       | 4,939      | 2,845       | 4,277      | 3,281       |
| North Dakota.....           | 91         | 17          | 146        | 170         | 70         | 214         | 166        | 203         | 190        | 309         |
| South Dakota.....           | 225        | 221         | 502        | 216         | 194        | 187         | 292        | 231         | 218        | 245         |
| Nebraska.....               | 616        | 661         | 794        | 487         | 891        | 508         | 794        | 501         | 733        | 668         |
| Kansas.....                 | 687        | 454         | 976        | 504         | 1,203      | 546         | 1,499      | 603         | 1,236      | 859         |
| Western Division:           |            |             |            |             |            |             |            |             |            |             |
| Montana.....                | 146        | 227         | 161        | 390         | 63         | 133         | 94         | 260         | 124        | 398         |
| Wyoming.....                | 50         | 60          |            |             | 82         | 21          | 65         | 72          | 69         |             |
| Colorado.....               | 477        | 554         | 567        | 393         | 427        | 189         | 386        | 732         | 311        | 637         |
| New Mexico.....             | 272        | 973         | 27         | 122         | 57         | 441         | 131        | 164         | 117        | 247         |
| Arizona.....                |            |             |            |             |            |             |            |             |            |             |
| Utah.....                   | 770        | 1,332       | 906        | 1,293       | 622        | 915         | 1,740      | 1,718       | 1,692      | 1,223       |
| Nevada.....                 | 40         | 24          | 38         | 52          |            |             | 39         | 112         | 14         | 75          |
| Idaho.....                  | 55         | 61          |            |             |            |             | 5          | 5           | 79         | 19          |
| Washington.....             | 791        | 808         | 764        | 546         | 644        | 314         | 747        | 330         | 728        | 487         |
| Oregon.....                 | 848        | 1,290       | 776        | 1,033       | 686        | 611         | 579        | 544         | 594        | 699         |
| California.....             | 2,009      | 4,179       | 2,414      | 5,281       | 2,341      | 3,914       | 2,405      | 4,810       | 2,302      | 5,251       |

\* Incomplete returns for 1893.

TABLE 52.—*Review of private high school statistics, 1890-1895.*

## SECONDARY STUDENTS, MALE AND FEMALE.

| State or Territory.          | 1890-91. |              | 1891-92. |              | 1892-93. |              | 1893-94. |              | 1894-95. |              |
|------------------------------|----------|--------------|----------|--------------|----------|--------------|----------|--------------|----------|--------------|
|                              | Male.    | Fe-<br>male. | Male.    | Fe-<br>male. | Male.    | Fe-<br>male. | Male.    | Fe-<br>male. | Male.    | Fe-<br>male. |
| United States.....           | 50,160   | 48,240       | 52,523   | 48,216       | 50,074   | 46,073       | 59,786   | 58,859       | 57,354   | 60,993       |
| North Atlantic Division..... | 19,305   | 16,830       | 21,408   | 17,177       | 20,299   | 17,840       | 23,047   | 21,236       | 21,934   | 20,564       |
| South Atlantic Division..... | 9,232    | 7,705        | 8,404    | 7,443        | 7,726    | 5,796        | 9,981    | 9,804        | 10,432   | 10,538       |
| South Central Division.....  | 8,510    | 9,880        | 9,451    | 10,102       | 8,432    | 8,811        | 11,681   | 12,778       | 12,322   | 14,750       |
| North Central Division.....  | 10,667   | 10,813       | 10,628   | 10,473       | 11,387   | 10,959       | 12,388   | 11,583       | 10,198   | 11,576       |
| Western Division.....        | 2,416    | 3,012        | 2,632    | 3,021        | 2,230    | 2,667        | 2,689    | 3,458        | 2,468    | 3,565        |
| North Atlantic Division:     |          |              |          |              |          |              |          |              |          |              |
| Maine.....                   | 1,009    | 992          | 1,253    | 1,215        | 1,201    | 1,214        | 1,497    | 1,504        | 1,649    | 1,673        |
| New Hampshire.....           | 1,225    | 699          | 1,293    | 694          | 1,343    | 837          | 1,183    | 709          | 1,208    | 776          |
| Vermont.....                 | 1,030    | 1,121        | 1,158    | 1,154        | 1,192    | 1,155        | 1,346    | 1,096        | 1,137    | 1,110        |
| Massachusetts.....           | 1,267    | 2,433        | 2,851    | 2,577        | 2,748    | 2,804        | 2,921    | 3,114        | 2,976    | 3,164        |
| Rhode Island.....            | 320      | 90           | 469      | 200          | 440      | 296          | 478      | 341          | 333      | 311          |
| Connecticut.....             | 837      | 739          | 778      | 692          | 813      | 966          | 1,245    | 1,576        | 1,217    | 1,658        |
| New York.....                | 6,050    | 6,196        | 5,633    | 5,610        | 5,834    | 5,919        | 5,898    | 6,372        | 5,479    | 5,715        |
| New Jersey.....              | 2,106    | 1,274        | 2,477    | 1,412        | 2,259    | 1,213        | 2,746    | 1,713        | 2,478    | 1,551        |
| Pennsylvania.....            | 4,661    | 3,286        | 5,496    | 3,623        | 4,469    | 3,436        | 5,733    | 4,811        | 5,457    | 4,626        |
| South Atlantic Division:     |          |              |          |              |          |              |          |              |          |              |
| Delaware.....                | 132      | 165          | 147      | 153          | 131      | 147          | 152      | 221          | 136      | 155          |
| Maryland.....                | 922      | 777          | 907      | 844          | 917      | 624          | 812      | 1,122        | 748      | 1,258        |
| District of Columbia.....    | 516      | 193          | 378      | 377          | 558      | 447          | 445      | 442          | 314      | 461          |
| Virginia.....                | 1,748    | 1,333        | 1,469    | 1,205        | 1,479    | 746          | 1,791    | 1,567        | 1,932    | 1,728        |
| West Virginia.....           | 0        | 200          | 130      | 110          | 102      | 57           | 241      | 340          | 334      | 389          |
| North Carolina.....          | 2,896    | 1,881        | 2,532    | 1,562        | 2,218    | 1,709        | 3,054    | 2,598        | 3,442    | 2,830        |
| South Carolina.....          | 969      | 823          | 956      | 810          | 869      | 765          | 896      | 939          | 939      | 1,043        |
| Georgia.....                 | 1,983    | 2,145        | 1,804    | 2,188        | 1,291    | 1,144        | 2,416    | 2,374        | 2,421    | 2,366        |
| Florida.....                 | 66       | 188          | 81       | 194          | 161      | 157          | 171      | 201          | 166      | 208          |
| South Central Division:      |          |              |          |              |          |              |          |              |          |              |
| Kentucky.....                | 1,209    | 1,400        | 998      | 1,048        | 1,132    | 1,018        | 1,676    | 1,460        | 1,827    | 3,117        |
| Tennessee.....               | 2,272    | 2,376        | 2,840    | 2,320        | 2,306    | 2,207        | 2,829    | 2,983        | 3,367    | 3,208        |
| Alabama.....                 | 1,310    | 1,253        | 1,127    | 1,061        | 851      | 754          | 1,472    | 1,243        | 1,823    | 1,481        |
| Mississippi.....             | 1,073    | 1,170        | 1,794    | 2,000        | 1,526    | 1,682        | 1,449    | 1,597        | 1,564    | 1,882        |
| Louisiana.....               | 524      | 784          | 430      | 820          | 350      | 642          | 424      | 1,171        | 485      | 1,054        |
| Texas.....                   | 1,692    | 2,429        | 1,539    | 2,304        | 1,577    | 1,997        | 2,678    | 3,335        | 2,237    | 3,048        |
| Arkansas.....                | 301      | 339          | 579      | 435          | 53       | 395          | 1,004    | 875          | 893      | 826          |
| Oklahoma.....                |          |              |          |              |          |              | 0        | 15           | 21       | 38           |
| Indian Territory.....        | 129      | 129          | 144      | 114          | 177      | 116          | 149      | 99           | 88       | 96           |
| North Central Division:      |          |              |          |              |          |              |          |              |          |              |
| Ohio.....                    | 3,465    | 2,473        | 2,831    | 1,968        | 2,809    | 1,755        | 2,590    | 2,106        | 988      | 1,460        |
| Indiana.....                 | 311      | 644          | 300      | 533          | 463      | 927          | 471      | 941          | 555      | 1,082        |
| Illinois.....                | 1,469    | 2,148        | 1,487    | 2,031        | 1,660    | 2,283        | 1,355    | 1,814        | 1,810    | 2,124        |
| Michigan.....                | 399      | 553          | 384      | 747          | 392      | 658          | 468      | 643          | 466      | 601          |
| Wisconsin.....               | 778      | 334          | 757      | 348          | 642      | 385          | 1,296    | 627          | 988      | 588          |
| Minnesota.....               | 664      | 537          | 785      | 547          | 746      | 612          | 891      | 577          | 740      | 676          |
| Iowa.....                    | 1,102    | 998          | 1,200    | 950          | 1,411    | 987          | 1,310    | 1,192        | 1,479    | 1,563        |
| Missouri.....                | 1,791    | 2,195        | 1,886    | 2,129        | 2,164    | 2,094        | 2,616    | 2,323        | 1,914    | 2,363        |
| North Dakota.....            | 33       | 58           | 88       | 23           | 47       | 81           | 85       | 93           | 97       | 96           |
| South Dakota.....            | 94       | 131          | 147      | 155          | 70       | 124          | 103      | 189          | 118      | 100          |
| Nebraska.....                | 213      | 403          | 268      | 526          | 389      | 502          | 416      | 378          | 348      | 385          |
| Kansas.....                  | 348      | 339          | 525      | 451          | 618      | 585          | 791      | 708          | 699      | 537          |
| Western Division:            |          |              |          |              |          |              |          |              |          |              |
| Montana.....                 | 39       | 107          | 41       | 120          | 0        | 63           | 18       | 76           | 34       | 90           |
| Wyoming.....                 | 0        | 50           |          |              | 0        | 37           | 0        | 21           | 34       | 38           |
| Colorado.....                | 257      | 220          | 289      | 278          | 218      | 209          | 199      | 187          | 109      | 202          |
| New Mexico.....              | 191      | 81           | 8        | 19           | 38       | 19           | 57       | 74           | 53       | 64           |
| Arizona.....                 |          |              |          |              |          |              |          |              |          |              |
| Utah.....                    | 407      | 363          | 533      | 373          | 336      | 286          | 958      | 782          | 759      | 933          |
| Nevada.....                  | 0        | 40           | 0        | 38           |          |              | 0        | 39           | 0        | 14           |
| Idaho.....                   | 34       | 21           |          |              |          |              | 0        | 5            | 30       | 49           |
| Washington.....              | 327      | 464          | 274      | 490          | 227      | 437          | 171      | 576          | 213      | 515          |
| Oregon.....                  | 397      | 451          | 361      | 415          | 327      | 359          | 297      | 282          | 290      | 304          |
| California.....              | 794      | 1,215        | 1,126    | 1,288        | 1,084    | 1,257        | 989      | 1,416        | 946      | 1,356        |

TABLE 53.—*Review of private high school statistics, 1891-1895.*

## ELEMENTARY PUPILS, MALE AND FEMALE.

| State or Territory.        | 1891-92. |         | 1892-93. |         | 1893-94. |         | 1894-95. |         |
|----------------------------|----------|---------|----------|---------|----------|---------|----------|---------|
|                            | Male.    | Female. | Male.    | Female. | Male.    | Female. | Male.    | Female. |
| United States.....         | 34,098   | 39,961  | 29,398   | 34,782  | 43,259   | 51,345  | 51,761   | 62,117  |
| North Atlantic Division... | 7,523    | 7,947   | 8,929    | 8,073   | 12,098   | 12,151  | 12,935   | 13,315  |
| South Atlantic Division... | 6,709    | 8,101   | 5,633    | 7,264   | 8,671    | 10,941  | 11,366   | 14,020  |
| South Central Division...  | 10,504   | 11,377  | 6,797    | 8,396   | 11,564   | 13,373  | 15,547   | 18,037  |
| North Central Division...  | 5,758    | 7,030   | 5,407    | 7,082   | 7,266    | 9,860   | 8,119    | 11,384  |
| Western Division.....      | 3,604    | 5,566   | 2,632    | 3,967   | 3,720    | 5,020   | 3,794    | 5,361   |
| North Atlantic Division:   |          |         |          |         |          |         |          |         |
| Maine.....                 | 115      | 135     | 132      | 144     | 141      | 214     | 243      | 274     |
| New Hampshire.....         | 132      | 224     | 115      | 210     | 216      | 297     | 164      | 218     |
| Vermont.....               | 181      | 137     | 130      | 115     | 199      | 121     | 400      | 467     |
| Massachusetts.....         | 449      | 638     | 438      | 476     | 561      | 746     | 675      | 861     |
| Rhode Island.....          | 126      | 72      | 197      | 143     | 260      | 491     | 248      | 298     |
| Connecticut.....           | 281      | 348     | 374      | 565     | 380      | 697     | 521      | 768     |
| New York.....              | 3,994    | 4,473   | 4,341    | 4,609   | 5,758    | 6,240   | 5,636    | 6,307   |
| New Jersey.....            | 858      | 693     | 825      | 668     | 1,237    | 1,175   | 1,266    | 1,353   |
| Pennsylvania.....          | 1,437    | 1,227   | 2,377    | 1,143   | 3,346    | 2,170   | 3,792    | 2,764   |
| South Atlantic Division:   |          |         |          |         |          |         |          |         |
| Delaware.....              | 156      | 121     | 130      | 115     | 116      | 89      | 113      | 131     |
| Maryland.....              | 565      | 139     | 356      | 265     | 511      | 550     | 1,031    | 983     |
| District of Columbia...    | 138      | 384     | 161      | 335     | 210      | 573     | 245      | 1,019   |
| Virginia.....              | 909      | 1,136   | 807      | 1,001   | 920      | 1,076   | 1,213    | 1,425   |
| West Virginia.....         | 10       | 40      | 58       | 108     | 187      | 295     | 145      | 277     |
| North Carolina.....        | 1,880    | 1,830   | 1,245    | 1,599   | 2,195    | 2,514   | 3,178    | 3,408   |
| South Carolina.....        | 803      | 845     | 892      | 987     | 1,112    | 1,239   | 1,256    | 1,397   |
| Georgia.....               | 3,873    | 2,847   | 1,849    | 2,375   | 3,024    | 4,153   | 3,772    | 4,622   |
| Florida.....               | 375      | 759     | 135      | 479     | 396      | 452     | 413      | 758     |
| South Central Division:    |          |         |          |         |          |         |          |         |
| Kentucky.....              | 814      | 1,167   | 848      | 871     | 1,353    | 1,598   | 1,959    | 2,251   |
| Tennessee.....             | 2,542    | 2,622   | 878      | 2,090   | 2,902    | 2,891   | 4,562    | 4,731   |
| Alabama.....               | 1,051    | 1,144   | 795      | 849     | 1,401    | 1,612   | 2,002    | 2,170   |
| Mississippi.....           | 2,532    | 2,371   | 1,758    | 1,744   | 1,797    | 2,049   | 2,340    | 2,637   |
| Louisiana.....             | 659      | 617     | 344      | 639     | 626      | 1,381   | 725      | 1,601   |
| Texas.....                 | 2,299    | 2,573   | 1,558    | 1,643   | 2,239    | 2,654   | 2,493    | 3,286   |
| Arkansas.....              | 411      | 451     | 450      | 392     | 887      | 795     | 1,084    | 930     |
| Oklahoma.....              |          |         |          |         | 0        | 25      | 15       | 42      |
| Indian Territory.....      | 176      | 232     | 166      | 168     | 359      | 368     | 367      | 339     |
| North Central Division:    |          |         |          |         |          |         |          |         |
| Ohio.....                  | 777      | 961     | 903      | 948     | 744      | 1,131   | 1,135    | 1,903   |
| Indiana.....               | 188      | 328     | 172      | 701     | 246      | 1,104   | 385      | 1,255   |
| Illinois.....              | 446      | 1,056   | 512      | 1,117   | 942      | 1,792   | 1,040    | 2,043   |
| Michigan.....              | 527      | 826     | 394      | 687     | 945      | 1,564   | 1,030    | 1,366   |
| Wisconsin.....             | 690      | 622     | 717      | 704     | 541      | 549     | 637      | 495     |
| Minnesota.....             | 513      | 375     | 407      | 325     | 684      | 448     | 737      | 612     |
| Iowa.....                  | 901      | 835     | 532      | 561     | 1,002    | 991     | 688      | 785     |
| Missouri.....              | 1,078    | 1,258   | 1,149    | 1,204   | 1,268    | 1,577   | 1,470    | 1,811   |
| North Dakota.....          | 45       | 125     | 59       | 155     | 98       | 105     | 137      | 172     |
| South Dakota.....          | 96       | 120     | 81       | 106     | 100      | 131     | 142      | 103     |
| Nebraska.....              | 228      | 259     | 237      | 271     | 259      | 242     | 352      | 316     |
| Kansas.....                | 239      | 265     | 244      | 302     | 377      | 226     | 366      | 493     |
| Western Division:          |          |         |          |         |          |         |          |         |
| Montana.....               | 95       | 295     | 38       | 95      | 90       | 170     | 134      | 264     |
| Wyoming.....               |          |         | 30       | 52      | 20       | 45      | 25       | 44      |
| Colorado.....              | 139      | 254     | 56       | 133     | 315      | 417     | 270      | 417     |
| New Mexico.....            | 42       | 80      | 127      | 314     | 75       | 89      | 142      | 105     |
| Arizona.....               |          |         |          |         |          |         |          |         |
| Utah.....                  | 640      | 653     | 372      | 543     | 934      | 784     | 665      | 558     |
| Nevada.....                | 0        | 52      |          |         | 18       | 94      | 12       | 63      |
| Idaho.....                 |          |         |          |         | 2        | 3       | 7        | 12      |
| Washington.....            | 215      | 331     | 102      | 212     | 77       | 253     | 83       | 404     |
| Oregon.....                | 492      | 541     | 285      | 326     | 264      | 280     | 332      | 367     |
| California.....            | 1,981    | 3,300   | 1,622    | 2,292   | 1,925    | 2,885   | 2,124    | 3,127   |



TABLE 54.—Review of private high school statistics, 1890-1895.

## COLORED SECONDARY STUDENTS, MALE AND FEMALE.

| State or Territory.         | 1890-91. |              | 1891-92. |              | 1892-93. |              | 1893-94. |              | 1894-95. |              |
|-----------------------------|----------|--------------|----------|--------------|----------|--------------|----------|--------------|----------|--------------|
|                             | Male.    | Fe-<br>male. | Male.    | Fe-<br>male. | Male.    | Fe-<br>male. | Male.    | Fe-<br>male. | Male.    | Fe-<br>male. |
| United States.....          | 784      | 665          | 667      | 651          | 391      | 432          | 1,162    | 1,620        | 1,110    | 2,233        |
| North Atlantic Division.... | 44       | 15           | 32       | 12           | 21       | 14           | 50       | 44           | 66       | 87           |
| South Atlantic Division.... | 481      | 408          | 311      | 311          | 254      | 276          | 649      | 981          | 712      | 1,619        |
| South Central Division....  | 148      | 154          | 315      | 316          | 108      | 137          | 405      | 554          | 312      | 511          |
| North Central Division....  | 103      | 83           | 9        | 6            | 7        | 5            | 56       | 40           | 18       | 15           |
| Western Division.....       | 8        | 5            | 0        | 6            | 1        | 0            | 2        | 1            | 2        | 1            |
| North Atlantic Division:    |          |              |          |              |          |              |          |              |          |              |
| Maine.....                  | 2        | 2            | 0        | 0            | 0        | 0            | 6        | 4            | 2        | 0            |
| New Hampshire.....          | 6        | 3            | 9        | 3            | 1        | 3            | 9        | 5            | 11       | 4            |
| Vermont.....                | 0        | 0            | 0        | 0            | 0        | 0            | 0        | 1            | 0        | 0            |
| Massachusetts.....          | 12       | 3            | 14       | 3            | 15       | 4            | 14       | 7            | 13       | 4            |
| Rhode Island.....           | 0        | 0            | 0        | 0            | 0        | 0            | 0        | 0            | 0        | 0            |
| Connecticut.....            | 5        | 0            | 4        | 2            | 1        | 4            | 3        | 6            | 1        | 16           |
| New York.....               | 18       | 4            | 0        | 3            | 0        | 2            | 13       | 16           | 2        | 4            |
| New Jersey.....             | 1        | 0            | 1        | 0            | 3        | 0            | 5        | 4            | 2        | 0            |
| Pennsylvania.....           | 0        | 3            | 4        | 1            | 1        | 1            | 0        | 1            | 25       | 59           |
| South Atlantic Division:    |          |              |          |              |          |              |          |              |          |              |
| Delaware.....               | 0        | 0            | 0        | 0            | 0        | 0            | 0        | 0            | 0        | 0            |
| Maryland.....               | 4        | 0            | 6        | 0            | 0        | 0            | 7        | 0            | 0        | 5            |
| District of Columbia.....   | 0        | 0            | 0        | 0            | 0        | 0            | 0        | 0            | 0        | 0            |
| Virginia.....               | 160      | 25           | 44       | 46           | 43       | 55           | 9        | 200          | 23       | 150          |
| West Virginia.....          | 0        | 0            | 0        | 0            | 0        | 0            | 0        | 0            | 0        | 0            |
| North Carolina.....         | 123      | 130          | 97       | 132          | 61       | 111          | 270      | 349          | 220      | 382          |
| South Carolina.....         | 136      | 124          | 24       | 44           | 55       | 41           | 71       | 120          | 101      | 354          |
| Georgia.....                | 35       | 109          | 117      | 68           | 75       | 53           | 235      | 254          | 181      | 272          |
| Florida.....                | 23       | 20           | 23       | 21           | 20       | 16           | 57       | 49           | 187      | 456          |
| South Central Division:     |          |              |          |              |          |              |          |              |          |              |
| Kentucky.....               | 0        | 0            | 0        | 0            | 0        | 0            | 0        | 0            | 0        | 0            |
| Tennessee.....              | 0        | 0            | 52       | 47           | 0        | 0            | 8        | 14           | 40       | 62           |
| Alabama.....                | 29       | 26           | 20       | 26           | 18       | 23           | 51       | 40           | 66       | 104          |
| Mississippi.....            | 63       | 76           | 104      | 131          | 43       | 56           | 128      | 164          | 88       | 135          |
| Louisiana.....              | 10       | 18           | 4        | 2            | 35       | 39           | 37       | 43           | 12       | 8            |
| Texas.....                  | 46       | 34           | 135      | 110          | 0        | 0            | 139      | 233          | 83       | 176          |
| Arkansas.....               | 0        | 0            | 0        | 0            | 12       | 19           | 42       | 60           | 23       | 24           |
| Oklahoma.....               | 0        | 0            | 0        | 0            | 0        | 0            | 0        | 0            | 0        | 0            |
| Indian Territory.....       | 0        | 0            | 0        | 0            | 0        | 0            | 0        | 0            | 0        | 2            |
| North Central Division:     |          |              |          |              |          |              |          |              |          |              |
| Ohio.....                   | 3        | 1            | 4        | 0            | 1        | 0            | 2        | 1            | 0        | 1            |
| Indiana.....                | 0        | 1            | 2        | 1            | 2        | 1            | 10       | 10           | 10       | 6            |
| Illinois.....               | 0        | 0            | 2        | 1            | 2        | 0            | 6        | 0            | 2        | 0            |
| Michigan.....               | 0        | 0            | 0        | 0            | 0        | 1            | 0        | 1            | 0        | 0            |
| Wisconsin.....              | 0        | 1            | 0        | 2            | 0        | 1            | 0        | 1            | 0        | 1            |
| Minnesota.....              | 0        | 0            | 0        | 0            | 0        | 1            | 1        | 1            | 0        | 0            |
| Iowa.....                   | 69       | 58           | 0        | 0            | 0        | 0            | 1        | 1            | 1        | 1            |
| Missouri.....               | 29       | 21           | 0        | 0            | 0        | 0            | 12       | 8            | 4        | 6            |
| North Dakota.....           | 0        | 0            | 0        | 0            | 0        | 0            | 0        | 0            | 0        | 0            |
| South Dakota.....           | 0        | 0            | 0        | 1            | 0        | 0            | 0        | 1            | 0        | 0            |
| Nebraska.....               | 0        | 0            | 0        | 0            | 0        | 0            | 22       | 4            | 0        | 0            |
| Kansas.....                 | 2        | 1            | 1        | 1            | 2        | 1            | 2        | 12           | 1        | 0            |
| Western Division:           |          |              |          |              |          |              |          |              |          |              |
| Montana.....                | 1        | 0            | 0        | 1            | 0        | 0            | 0        | 0            | 0        | 0            |
| Wyoming.....                | 0        | 0            | 0        | 0            | 0        | 0            | 0        | 0            | 0        | 0            |
| Colorado.....               | 0        | 0            | 0        | 0            | 0        | 0            | 0        | 0            | 0        | 0            |
| New Mexico.....             | 5        | 5            | 0        | 0            | 0        | 0            | 0        | 0            | 0        | 0            |
| Arizona.....                | 0        | 0            | 0        | 0            | 0        | 0            | 0        | 0            | 0        | 0            |
| Utah.....                   | 0        | 0            | 0        | 0            | 0        | 0            | 0        | 0            | 0        | 0            |
| Nevada.....                 | 0        | 0            | 0        | 0            | 0        | 0            | 0        | 0            | 0        | 0            |
| Idaho.....                  | 0        | 0            | 0        | 0            | 0        | 0            | 0        | 0            | 0        | 0            |
| Washington.....             | 0        | 0            | 0        | 1            | 0        | 0            | 1        | 1            | 1        | 1            |
| Oregon.....                 | 0        | 0            | 0        | 0            | 0        | 0            | 0        | 0            | 0        | 0            |
| California.....             | 2        | 0            | 0        | 4            | 1        | 0            | 1        | 0            | 1        | 0            |

TABLE 55.—*Review of private high school statistics, 1890-1895.*

## CLASSICAL AND SCIENTIFIC COLLEGE PREPARATORY STUDENTS.

| State or Territory.          | 1890-91.   |             | 1891-92.   |             | 1892-93.   |             | 1893-94.   |             | 1894-95.   |             |
|------------------------------|------------|-------------|------------|-------------|------------|-------------|------------|-------------|------------|-------------|
|                              | Classical. | Scientific. | Classical. | Scientific. | Classical. | Scientific. | Classical. | Scientific. | Classical. | Scientific. |
| United States.....           | 13,405     | 7,502       | 15,995     | 9,291       | 15,009     | 10,476      | 19,409     | 11,330      | 20,477     | 11,574      |
| North Atlantic Division..... | 5,561      | 3,368       | 6,971      | 4,035       | 7,271      | 4,593       | 8,080      | 5,037       | 8,697      | 4,779       |
| South Atlantic Division..... | 2,887      | 692         | 3,127      | 998         | 2,351      | 862         | 3,830      | 1,470       | 3,919      | 1,362       |
| South Central Division.....  | 2,506      | 1,571       | 3,126      | 2,076       | 2,343      | 2,106       | 3,920      | 1,875       | 4,503      | 2,654       |
| North Central Division.....  | 1,775      | 1,446       | 2,008      | 1,601       | 2,467      | 2,412       | 2,936      | 2,119       | 2,609      | 2,180       |
| Western Division.....        | 676        | 485         | 763        | 581         | 577        | 497         | 640        | 824         | 749        | 599         |
| North Atlantic Division:     |            |             |            |             |            |             |            |             |            |             |
| Maine.....                   | 360        | 64          | 405        | 53          | 467        | 65          | 554        | 63          | 682        | 142         |
| New Hampshire.....           | 387        | 158         | 720        | 183         | 621        | 275         | 587        | 228         | 617        | 189         |
| Vermont.....                 | 335        | 133         | 338        | 147         | 334        | 145         | 266        | 141         | 302        | 199         |
| Massachusetts.....           | 1,071      | 542         | 1,296      | 773         | 1,269      | 738         | 1,387      | 769         | 1,602      | 772         |
| Rhode Island.....            | 63         | 31          | 115        | 38          | 220        | 53          | 109        | 68          | 162        | 27          |
| Connecticut.....             | 197        | 122         | 274        | 169         | 338        | 142         | 555        | 263         | 671        | 237         |
| New York.....                | 1,686      | 1,064       | 1,890      | 967         | 1,704      | 1,336       | 1,948      | 1,263       | 2,019      | 1,150       |
| New Jersey.....              | 680        | 492         | 894        | 716         | 946        | 549         | 989        | 988         | 952        | 866         |
| Pennsylvania.....            | 782        | 702         | 1,099      | 989         | 1,372      | 1,296       | 1,685      | 1,254       | 1,690      | 1,217       |
| South Atlantic Division:     |            |             |            |             |            |             |            |             |            |             |
| Delaware.....                | 19         | 6           | 10         | 11          | 29         | 13          | 32         | 21          | 39         | 39          |
| Maryland.....                | 253        | 18          | 229        | 163         | 120        | 156         | 234        | 292         | 170        | 80          |
| District of Columbia.....    | 94         | 39          | 241        | 48          | 110        | 39          | 299        | 91          | 159        | 113         |
| Virginia.....                | 604        | 131         | 526        | 132         | 532        | 139         | 673        | 188         | 713        | 302         |
| West Virginia.....           | 45         | 0           | 45         | 0           | 6          | 0           | 75         | 25          | 55         | 29          |
| North Carolina.....          | 682        | 225         | 964        | 302         | 718        | 302         | 1,167      | 383         | 1,213      | 390         |
| South Carolina.....          | 350        | 41          | 340        | 99          | 212        | 96          | 377        | 91          | 433        | 123         |
| Georgia.....                 | 885        | 216         | 723        | 237         | 568        | 86          | 869        | 359         | 1,110      | 293         |
| Florida.....                 | 20         | 16          | 49         | 15          | 56         | 31          | 113        | 20          | 27         | 2           |
| South Central Division:      |            |             |            |             |            |             |            |             |            |             |
| Kentucky.....                | 235        | 175         | 229        | 276         | 354        | 265         | 499        | 211         | 568        | 313         |
| Tennessee.....               | 610        | 348         | 912        | 479         | 861        | 429         | 872        | 459         | 1,281      | 797         |
| Alabama.....                 | 340        | 190         | 438        | 198         | 247        | 192         | 864        | 207         | 524        | 419         |
| Mississippi.....             | 418        | 259         | 549        | 570         | 337        | 535         | 514        | 318         | 519        | 407         |
| Louisiana.....               | 113        | 35          | 202        | 116         | 160        | 38          | 183        | 78          | 177        | 46          |
| Texas.....                   | 665        | 470         | 599        | 317         | 211        | 546         | 885        | 427         | 946        | 478         |
| Arkansas.....                | 121        | 83          | 191        | 94          | 144        | 91          | 490        | 122         | 403        | 141         |
| Oklahoma.....                |            |             |            |             |            |             |            |             | 54         | 3           |
| Indian Territory.....        | 4          | 11          | 6          | 26          | 19         | 10          | 13         | 53          | 31         | 50          |
| North Central Division:      |            |             |            |             |            |             |            |             |            |             |
| Ohio.....                    | 456        | 248         | 376        | 352         | 396        | 371         | 488        | 271         | 325        | 296         |
| Indiana.....                 | 32         | 10          | 59         | 54          | 224        | 144         | 127        | 1           | 68         | 22          |
| Illinois.....                | 299        | 248         | 193        | 189         | 342        | 473         | 525        | 495         | 500        | 405         |
| Michigan.....                | 53         | 190         | 38         | 70          | 80         | 119         | 69         | 108         | 187        | 150         |
| Wisconsin.....               | 236        | 59          | 139        | 40          | 77         | 79          | 186        | 50          | 231        | 166         |
| Minnesota.....               | 69         | 104         | 209        | 80          | 84         | 270         | 93         | 74          | 38         | 52          |
| Iowa.....                    | 156        | 182         | 197        | 103         | 236        | 176         | 259        | 191         | 319        | 317         |
| Missouri.....                | 303        | 239         | 469        | 398         | 739        | 490         | 729        | 675         | 475        | 471         |
| North Dakota.....            | 18         | 21          | 27         | 20          | 11         | 27          | 15         | 0           | 15         | 0           |
| South Dakota.....            | 45         | 16          | 91         | 19          | 49         | 23          | 60         | 20          | 50         | 2           |
| Nebraska.....                | 56         | 54          | 102        | 177         | 154        | 62          | 189        | 74          | 169        | 76          |
| Kansas.....                  | 82         | 75          | 108        | 99          | 75         | 173         | 200        | 160         | 232        | 223         |
| Western Division:            |            |             |            |             |            |             |            |             |            |             |
| Montana.....                 | 4          | 8           | 7          | 15          | 4          | 10          | 18         | 10          | 18         | 13          |
| Wyoming.....                 | 0          | 0           |            |             |            |             |            |             | 14         |             |
| Colorado.....                | 137        | 43          | 52         | 33          | 75         | 44          | 36         | 128         | 32         | 50          |
| New Mexico.....              | 9          | 33          | 1          | 0           | 1          |             | 2          | 18          | 7          | 8           |
| Arizona.....                 |            |             |            |             |            |             |            |             |            |             |
| Utah.....                    | 35         | 19          | 22         | 34          | 18         | 15          | 61         | 112         | 165        | 88          |
| Nevada.....                  | 0          | 0           | 0          | 0           |            |             | 0          | 1           |            |             |
| Idaho.....                   | 0          | 0           |            |             |            |             | 1          |             | 6          | 5           |
| Washington.....              | 123        | 114         | 138        | 93          | 49         | 28          | 71         | 52          | 35         | 26          |
| Oregon.....                  | 43         | 108         | 67         | 109         | 53         | 89          | 76         | 106         | 116        | 113         |
| California.....              | 325        | 160         | 476        | 297         | 377        | 311         | 375        | 402         | 356        | 296         |

TABLE 56.—*Review of private high school statistics, 1890-1895.*

## CLASSICAL COLLEGE PREPARATORY STUDENTS, MALE AND FEMALE.

| State or Territory.         | 1890-91. |         | 1891-92. |         | 1892-93. |         | 1893-94. |         | 1894-95. |         |
|-----------------------------|----------|---------|----------|---------|----------|---------|----------|---------|----------|---------|
|                             | Male.    | Female. | Male.    | Female. | Male.    | Female. | Male.    | Female. | Male.    | Female. |
| United States.....          | 9,657    | 3,748   | 11,516   | 4,479   | 10,786   | 4,223   | 12,766   | 6,640   | 13,503   | 6,974   |
| North Atlantic Division.... | 4,601    | 960     | 5,759    | 1,212   | 5,891    | 1,380   | 6,004    | 2,076   | 6,522    | 2,175   |
| South Atlantic Division.... | 1,897    | 990     | 2,173    | 954     | 1,499    | 852     | 2,417    | 1,413   | 2,566    | 1,833   |
| South Central Division....  | 1,470    | 1,036   | 1,701    | 1,425   | 1,474    | 869     | 2,234    | 1,686   | 2,410    | 2,093   |
| North Central Division....  | 1,217    | 558     | 1,397    | 611     | 1,542    | 925     | 1,664    | 1,272   | 1,530    | 1,079   |
| Western Division.....       | 472      | 204     | 486      | 277     | 380      | 197     | 447      | 193     | 475      | 274     |
| North Atlantic Division:    |          |         |          |         |          |         |          |         |          |         |
| Maine.....                  | 286      | 74      | 303      | 102     | 337      | 130     | 392      | 162     | 440      | 242     |
| New Hampshire.....          | 346      | 41      | 645      | 75      | 530      | 91      | 527      | 60      | 535      | 82      |
| Vermont.....                | 251      | 84      | 227      | 111     | 239      | 95      | 205      | 61      | 235      | 67      |
| Massachusetts.....          | 906      | 165     | 1,061    | 235     | 1,013    | 256     | 929      | 458     | 1,081    | 521     |
| Rhode Island.....           | 61       | 2       | 111      | 4       | 205      | 15      | 93       | 11      | 146      | 16      |
| Connecticut.....            | 147      | 50      | 216      | 58      | 251      | 87      | 430      | 125     | 492      | 179     |
| New York.....               | 1,382    | 304     | 1,522    | 308     | 1,344    | 360     | 1,489    | 459     | 1,502    | 517     |
| New Jersey.....             | 611      | 69      | 798      | 96      | 864      | 82      | 811      | 178     | 767      | 185     |
| Pennsylvania.....           | 611      | 171     | 876      | 223     | 1,108    | 264     | 1,123    | 562     | 1,324    | 366     |
| South Atlantic Division:    |          |         |          |         |          |         |          |         |          |         |
| Delaware.....               | 14       | 5       | 8        | 2       | 26       | 3       | 16       | 30      | 9        |         |
| Maryland.....               | 145      | 113     | 204      | 25      | 113      | 7       | 110      | 124     | 75       | 95      |
| District of Columbia....    | 94       | 0       | 241      | 0       | 73       | 37      | 286      | 13      | 148      | 11      |
| Virginia.....               | 489      | 115     | 428      | 98      | 477      | 55      | 509      | 164     | 519      | 194     |
| West Virginia.....          | 25       | 20      | 25       | 30      | 5        | 1       | 49       | 26      | 48       | 7       |
| North Carolina.....         | 488      | 194     | 707      | 257     | 410      | 308     | 749      | 418     | 776      | 437     |
| South Carolina.....         | 188      | 142     | 194      | 146     | 116      | 96      | 184      | 193     | 347      | 86      |
| Georgia.....                | 439      | 396     | 335      | 388     | 251      | 317     | 453      | 407     | 608      | 502     |
| Florida.....                | 15       | 5       | 31       | 18      | 28       | 28      | 61       | 52      | 15       | 12      |
| South Central Division:     |          |         |          |         |          |         |          |         |          |         |
| Kentucky.....               | 174      | 61      | 157      | 72      | 272      | 82      | 346      | 153     | 344      | 224     |
| Tennessee.....              | 396      | 214     | 573      | 333     | 565      | 306     | 546      | 326     | 742      | 539     |
| Alabama.....                | 195      | 145     | 244      | 194     | 167      | 80      | 316      | 148     | 354      | 170     |
| Mississippi.....            | 220      | 198     | 270      | 279     | 189      | 148     | 250      | 264     | 262      | 257     |
| Louisiana.....              | 71       | 42      | 90       | 112     | 68       | 92      | 38       | 145     | 64       | 113     |
| Texas.....                  | 346      | 319     | 285      | 314     | 115      | 96      | 447      | 438     | 369      | 577     |
| Arkansas.....               | 67       | 54      | 77       | 114     | 85       | 59      | 278      | 212     | 232      | 171     |
| Oklahoma.....               |          |         |          |         |          |         |          |         | 21       | 33      |
| Indian Territory.....       | 1        | 3       | 5        | 1       | 13       | 6       | 13       | 0       | 22       | 9       |
| North Central Division:     |          |         |          |         |          |         |          |         |          |         |
| Ohio.....                   | 312      | 144     | 278      | 98      | 319      | 77      | 301      | 187     | 204      | 121     |
| Indiana.....                | 23       | 9       | 31       | 28      | 74       | 150     | 24       | 103     | 27       | 41      |
| Illinois.....               | 128      | 141     | 128      | 65      | 182      | 160     | 295      | 230     | 296      | 204     |
| Michigan.....               | 41       | 12      | 28       | 10      | 45       | 35      | 19       | 41      | 89       | 93      |
| Wisconsin.....              | 233      | 3       | 115      | 24      | 58       | 19      | 141      | 45      | 157      | 74      |
| Minnesota.....              | 45       | 24      | 194      | 15      | 68       | 16      | 42       | 56      | 14       | 24      |
| Iowa.....                   | 118      | 38      | 140      | 57      | 139      | 97      | 163      | 96      | 222      | 97      |
| Missouri.....               | 189      | 114     | 287      | 182     | 476      | 263     | 424      | 305     | 238      | 237     |
| North Dakota.....           | 13       | 5       | 13       | 14      | 5        | 6       | 11       | 4       | 11       | 4       |
| South Dakota.....           | 31       | 14      | 65       | 26      | 36       | 13      | 36       | 21      | 34       | 16      |
| Nebraska.....               | 38       | 18      | 45       | 57      | 86       | 68      | 107      | 82      | 100      | 69      |
| Kansas.....                 | 46       | 36      | 73       | 35      | 54       | 21      | 101      | 99      | 138      | 94      |
| Western Division:           |          |         |          |         |          |         |          |         |          |         |
| Montana.....                | 2        | 2       | 2        | 5       | 0        | 4       | 4        | 14      | 2        | 16      |
| Wyoming.....                | 0        | 0       |          |         |          |         |          |         | 8        | 6       |
| Colorado.....               | 82       | 55      | 27       | 25      | 45       | 30      | 26       | 10      | 21       | 11      |
| New Mexico.....             | 8        | 1       | 1        | 0       | 1        | 0       | 2        | 0       | 5        | 2       |
| Arizona.....                |          |         |          |         |          |         |          |         |          |         |
| Utah.....                   | 31       | 4       | 16       | 6       | 13       | 5       | 50       | 11      | 94       | 71      |
| Nevada.....                 | 0        | 0       | 0        | 0       |          |         | 0        | 0       |          |         |
| Idaho.....                  | 0        | 0       |          |         |          |         | 0        | 1       | 4        | 2       |
| Washington.....             | 94       | 29      | 107      | 31      | 26       | 23      | 44       | 27      | 14       | 21      |
| Oregon.....                 | 32       | 11      | 37       | 30      | 36       | 17      | 61       | 15      | 81       | 35      |
| California.....             | 223      | 102     | 296      | 180     | 259      | 118     | 260      | 115     | 246      | 110     |

TABLE 57.—*Review of private high school statistics, 1890-1895.*

## SCIENTIFIC COLLEGE PREPARATORY STUDENTS, MALE AND FEMALE.

| State or Territory.          | 1890-91. |          | 1891-92. |          | 1892-93. |          | 1893-94. |          | 1894-95. |          |
|------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
|                              | Male.    | Fe-male. | Male.    | Fe-male. | Male.    | Fe-male. | Male.    | Fe-male. | Male.    | Fe-male. |
| United States .....          | 5,288    | 2,214    | 6,731    | 2,560    | 7,642    | 2,834    | 7,896    | 3,434    | 8,058    | 3,516    |
| North Atlantic Division..... | 2,763    | 540      | 3,424    | 611      | 3,786    | 813      | 4,128    | 909      | 3,940    | 839      |
| South Atlantic Division..... | 459      | 233      | 669      | 329      | 549      | 313      | 790      | 680      | 943      | 419      |
| South Central Division.....  | 900      | 671      | 1,190    | 886      | 1,233    | 873      | 1,088    | 797      | 1,479    | 1,175    |
| North Central Division.....  | 866      | 580      | 1,040    | 561      | 1,703    | 709      | 1,264    | 855      | 1,304    | 876      |
| Western Division.....        | 295      | 190      | 408      | 173      | 371      | 126      | 626      | 203      | 392      | 207      |
| North Atlantic Division:     |          |          |          |          |          |          |          |          |          |          |
| Maine.....                   | 46       | 18       | 45       | 8        | 58       | 7        | 45       | 18       | 121      | 21       |
| New Hampshire.....           | 117      | 41       | 153      | 30       | 242      | 33       | 178      | 50       | 158      | 31       |
| Vermont.....                 | 75       | 58       | 90       | 57       | 96       | 49       | 98       | 43       | 127      | 72       |
| Massachusetts.....           | 480      | 62       | 581      | 192      | 546      | 192      | 605      | 164      | 565      | 207      |
| Rhode Island.....            | 31       | 0        | 34       | 4        | 38       | 15       | 53       | 15       | 27       | 0        |
| Connecticut.....             | 104      | 18       | 150      | 19       | 128      | 14       | 241      | 22       | 200      | 37       |
| New York.....                | 885      | 179      | 821      | 146      | 1,084    | 252      | 1,026    | 237      | 952      | 178      |
| New Jersey.....              | 400      | 32       | 669      | 47       | 482      | 67       | 852      | 136      | 729      | 137      |
| Pennsylvania.....            | 570      | 132      | 881      | 108      | 1,112    | 184      | 1,030    | 224      | 1,061    | 156      |
| South Atlantic Division:     |          |          |          |          |          |          |          |          |          |          |
| Delaware.....                | 6        | 0        | 10       | 1        | 8        | 5        | 10       | 11       | 15       | 15       |
| Maryland.....                | 18       | 0        | 40       | 123      | 49       | 107      | 36       | 256      | 35       | 42       |
| District of Columbia.....    | 37       | 2        | 48       | 0        | 37       | 2        | 85       | 6        | 98       | 15       |
| Virginia.....                | 86       | 45       | 122      | 10       | 112      | 27       | 146      | 42       | 229      | 73       |
| West Virginia.....           | 0        | 0        | 0        | 0        | 0        | 0        | 20       | 5        | 29       | 0        |
| North Carolina.....          | 148      | 77       | 227      | 75       | 184      | 118      | 231      | 152      | 267      | 123      |
| South Carolina.....          | 36       | 5        | 64       | 26       | 68       | 28       | 77       | 14       | 66       | 57       |
| Georgia.....                 | 121      | 95       | 147      | 90       | 70       | 16       | 175      | 184      | 202      | 91       |
| Florida.....                 | 7        | 9        | 11       | 4        | 21       | 10       | 10       | 10       | 2        | 0        |
| South Central Division:      |          |          |          |          |          |          |          |          |          |          |
| Kentucky.....                | 111      | 64       | 146      | 130      | 181      | 84       | 141      | 70       | 157      | 156      |
| Tennessee.....               | 219      | 129      | 311      | 168      | 285      | 144      | 287      | 172      | 481      | 316      |
| Alabama.....                 | 130      | 60       | 107      | 91       | 123      | 69       | 129      | 78       | 261      | 158      |
| Mississippi.....             | 132      | 127      | 289      | 281      | 291      | 244      | 154      | 164      | 206      | 201      |
| Louisiana.....               | 20       | 15       | 34       | 82       | 13       | 25       | 46       | 32       | 25       | 21       |
| Texas.....                   | 239      | 231      | 224      | 93       | 276      | 270      | 216      | 211      | 222      | 256      |
| Arkansas.....                | 41       | 42       | 56       | 38       | 54       | 37       | 70       | 52       | 95       | 46       |
| Oklahoma.....                |          |          |          |          |          |          |          |          | 0        | 3        |
| Indian Territory.....        | 8        | 3        | 23       | 3        | 10       | 0        | 45       | 8        | 32       | 18       |
| North Central Division:      |          |          |          |          |          |          |          |          |          |          |
| Ohio.....                    | 174      | 74       | 266      | 86       | 305      | 66       | 182      | 89       | 178      | 118      |
| Indiana.....                 | 6        | 4        | 54       | 0        | 130      | 14       | 1        | 0        | 16       | 6        |
| Illinois.....                | 118      | 130      | 120      | 69       | 319      | 154      | 277      | 218      | 217      | 188      |
| Michigan.....                | 118      | 72       | 54       | 16       | 94       | 25       | 80       | 28       | 105      | 45       |
| Wisconsin.....               | 52       | 7        | 31       | 9        | 52       | 27       | 42       | 8        | 123      | 43       |
| Minnesota.....               | 69       | 35       | 65       | 15       | 187      | 83       | 60       | 14       | 39       | 13       |
| Iowa.....                    | 100      | 82       | 59       | 44       | 123      | 53       | 109      | 82       | 176      | 141      |
| Missouri.....                | 124      | 115      | 219      | 179      | 342      | 148      | 376      | 299      | 247      | 224      |
| North Dakota.....            | 13       | 8        | 13       | 7        | 10       | 17       | 0        | 0        | 0        | 0        |
| South Dakota.....            | 16       | 0        | 13       | 6        | 14       | 14       | 7        | 13       | 0        | 2        |
| Nebraska.....                | 29       | 25       | 79       | 98       | 34       | 28       | 45       | 29       | 50       | 26       |
| Kansas.....                  | 47       | 28       | 67       | 32       | 93       | 80       | 85       | 75       | 153      | 70       |
| Western Division:            |          |          |          |          |          |          |          |          |          |          |
| Montana.....                 | 0        | 8        | 3        | 12       | 2        | 8        | 0        | 10       | 1        | 12       |
| Wyoming.....                 | 0        | 0        |          |          |          |          |          |          | 0        |          |
| Colorado.....                | 26       | 17       | 8        | 25       | 20       | 24       | 107      | 21       | 23       | 27       |
| New Mexico.....              | 21       | 12       | 0        | 0        |          |          | 7        | 11       | 0        | 8        |
| Arizona.....                 |          |          |          |          |          |          |          |          |          |          |
| Utah.....                    | 16       | 3        | 28       | 6        | 14       | 1        | 72       | 40       | 56       | 32       |
| Nevada.....                  | 0        | 0        | 0        | 0        |          |          | 0        | 1        |          |          |
| Idaho.....                   | 0        | 0        |          |          |          |          |          |          | 1        | 4        |
| Washington.....              | 67       | 47       | 44       | 49       | 20       | 8        | 9        | 43       | 8        | 18       |
| Oregon.....                  | 53       | 55       | 61       | 48       | 59       | 30       | 74       | 32       | 78       | 35       |
| California.....              | 112      | 48       | 264      | 33       | 256      | 55       | 357      | 45       | 225      | 71       |



TABLE 58.—*Review of private high school statistics, 1891-1895.*

## NUMBER OF GRADUATES, MALE AND FEMALE.

| State or Territory.        | 1891-92. |         | 1892-93. |         | 1893-94. |         | 1894-95. |         |
|----------------------------|----------|---------|----------|---------|----------|---------|----------|---------|
|                            | Male.    | Female. | Male.    | Female. | Male.    | Female. | Male.    | Female. |
| United States.....         | 4, 777   | 3, 700  | 4, 600   | 3, 719  | 5, 940   | 5, 211  | 6, 052   | 5, 908  |
| North Atlantic Division... | 2, 553   | 1, 684  | 2, 379   | 1, 794  | 2, 932   | 2, 237  | 3, 000   | 2, 467  |
| South Atlantic Division... | 490      | 385     | 477      | 356     | 772      | 675     | 750      | 775     |
| South Central Division...  | 520      | 542     | 525      | 605     | 716      | 891     | 716      | 1, 065  |
| North Central Division...  | 940      | 813     | 1, 001   | 776     | 1, 224   | 1, 123  | 1, 269   | 1, 280  |
| Western Division.....      | 274      | 276     | 218      | 188     | 296      | 285     | 317      | 321     |
| North Atlantic Division:   |          |         |          |         |          |         |          |         |
| Maine.....                 | 171      | 150     | 129      | 122     | 158      | 182     | 189      | 203     |
| New Hampshire.....         | 187      | 95      | 148      | 97      | 127      | 133     | 223      | 107     |
| Vermont.....               | 123      | 112     | 138      | 123     | 133      | 109     | 165      | 137     |
| Massachusetts.....         | 400      | 358     | 332      | 339     | 428      | 323     | 435      | 404     |
| Rhode Island.....          | 24       | 20      | 40       | 43      | 53       | 42      | 50       | 40      |
| Connecticut.....           | 98       | 70      | 110      | 113     | 195      | 182     | 176      | 178     |
| New York.....              | 682      | 507     | 716      | 545     | 872      | 643     | 755      | 679     |
| New Jersey.....            | 389      | 127     | 335      | 130     | 344      | 183     | 326      | 182     |
| Pennsylvania.....          | 479      | 245     | 431      | 282     | 622      | 410     | 681      | 537     |
| South Atlantic Division:   |          |         |          |         |          |         |          |         |
| Delaware.....              | 8        | 8       | 10       | 22      | 10       | 23      | 17       | 20      |
| Maryland.....              | 107      | 27      | 81       | 36      | 91       | 77      | 87       | 122     |
| District of Columbia...    | 53       | 17      | 62       | 13      | 30       | 32      | 55       | 50      |
| Virginia.....              | 56       | 88      | 75       | 87      | 136      | 98      | 106      | 112     |
| West Virginia.....         | 2        | 3       | 0        | 0       | 16       | 6       | 19       | 11      |
| North Carolina.....        | 100      | 43      | 83       | 65      | 152      | 120     | 200      | 144     |
| South Carolina.....        | 64       | 53      | 57       | 54      | 161      | 123     | 96       | 111     |
| Georgia.....               | 94       | 141     | 78       | 66      | 150      | 176     | 172      | 184     |
| Florida.....               | 6        | 5       | 31       | 13      | 26       | 20      | 18       | 21      |
| South Central Division:    |          |         |          |         |          |         |          |         |
| Kentucky.....              | 70       | 44      | 90       | 60      | 132      | 106     | 136      | 159     |
| Tennessee.....             | 119      | 121     | 152      | 215     | 146      | 213     | 172      | 243     |
| Alabama.....               | 88       | 50      | 28       | 43      | 108      | 72      | 101      | 68      |
| Mississippi.....           | 132      | 133     | 140      | 127     | 96       | 152     | 136      | 175     |
| Louisiana.....             | 26       | 69      | 31       | 42      | 30       | 111     | 17       | 119     |
| Texas.....                 | 55       | 109     | 63       | 101     | 133      | 180     | 95       | 240     |
| Arkansas.....              | 24       | 14      | 17       | 11      | 45       | 28      | 32       | 33      |
| Oklahoma.....              |          |         |          |         | 0        | 0       |          |         |
| Indian Territory.....      | 6        | 2       | 4        | 6       | 26       | 29      | 27       | 28      |
| North Central Division:    |          |         |          |         |          |         |          |         |
| Ohio.....                  | 324      | 170     | 273      | 123     | 219      | 160     | 117      | 145     |
| Indiana.....               | 30       | 58      | 50       | 64      | 26       | 89      | 41       | 102     |
| Illinois.....              | 72       | 99      | 173      | 130     | 160      | 194     | 213      | 222     |
| Michigan.....              | 50       | 53      | 51       | 44      | 41       | 90      | 66       | 89      |
| Wisconsin.....             | 103      | 45      | 66       | 44      | 143      | 79      | 186      | 87      |
| Minnesota.....             | 79       | 51      | 50       | 37      | 120      | 64      | 131      | 76      |
| Iowa.....                  | 101      | 109     | 91       | 78      | 169      | 130     | 203      | 169     |
| Missouri.....              | 112      | 154     | 161      | 155     | 220      | 178     | 197      | 255     |
| North Dakota.....          | 3        | 2       | 1        | 2       | 8        | 6       | 7        | 4       |
| South Dakota.....          | 4        | 8       | 12       | 22      | 11       | 13      | 5        | 12      |
| Nebraska.....              | 14       | 34      | 15       | 35      | 23       | 40      | 26       | 50      |
| Kansas.....                | 48       | 30      | 52       | 42      | 75       | 80      | 71       | 78      |
| Western Division:          |          |         |          |         |          |         |          |         |
| Montana.....               | 0        | 3       | 0        | 0       | 3        | 2       | 6        | 2       |
| Wyoming.....               |          |         |          |         | 0        | 5       | 0        | 0       |
| Colorado.....              | 14       | 9       | 13       | 14      | 12       | 13      | 17       | 27      |
| New Mexico.....            | 0        | 1       | 4        | 0       | 4        | 3       | 10       | 3       |
| Arizona.....               |          |         |          |         |          |         |          |         |
| Utah.....                  | 87       | 66      | 45       | 40      | 62       | 44      | 36       | 39      |
| Nevada.....                | 0        | 0       |          |         | 0        | 8       | 0        | 0       |
| Idaho.....                 |          |         |          |         | 0        | 0       | 5        | 4       |
| Washington.....            | 11       | 44      | 23       | 24      | 26       | 17      | 27       | 9       |
| Oregon.....                | 27       | 31      | 41       | 13      | 19       | 23      | 26       | 33      |
| California.....            | 135      | 122     | 92       | 97      | 170      | 170     | 190      | 204     |

TABLE 59.—*Review of private high school statistics, 1890-1895.*

## GRADUATES AND COLLEGE PREPARATORY STUDENTS IN GRADUATING CLASS.

| State or Territory.          | 1890-91.   |                      | 1891-92.   |                      | 1892-93.   |                      | 1893-94.   |                      | 1894-95.   |                      |
|------------------------------|------------|----------------------|------------|----------------------|------------|----------------------|------------|----------------------|------------|----------------------|
|                              | Graduates. | In graduating class. | Graduates. | In graduating class. | Graduates. | In graduating class. | Graduates. | In graduating class. | Graduates. | In graduating class. |
| United States.....           | 7,108      | 4,362                | 8,477      | 5,229                | 8,319      | 5,000                | 11,151     | 5,022                | 11,060     | 5,733                |
| North Atlantic Division..... | 3,458      | 1,903                | 4,237      | 2,429                | 4,173      | 2,265                | 5,169      | 2,603                | 5,467      | 2,649                |
| South Atlantic Division..... | 911        | 662                  | 875        | 639                  | 833        | 618                  | 1,447      | 632                  | 1,525      | 782                  |
| South Central Division.....  | 787        | 621                  | 1,062      | 831                  | 1,130      | 757                  | 1,607      | 621                  | 1,781      | 889                  |
| North Central Division.....  | 1,594      | 709                  | 1,753      | 1,086                | 1,777      | 1,152                | 2,347      | 934                  | 2,549      | 1,037                |
| Western Division.....        | 358        | 307                  | 550        | 234                  | 406        | 208                  | 581        | 232                  | 638        | 376                  |
| North Atlantic Division:     |            |                      |            |                      |            |                      |            |                      |            |                      |
| Maine.....                   | 298        | 101                  | 521        | 121                  | 251        | 101                  | 340        | 129                  | 392        | 151                  |
| New Hampshire.....           | 248        | 103                  | 282        | 189                  | 245        | 71                   | 260        | 122                  | 330        | 174                  |
| Vermont.....                 | 238        | 94                   | 235        | 140                  | 261        | 119                  | 242        | 98                   | 302        | 84                   |
| Massachusetts.....           | 548        | 284                  | 758        | 382                  | 671        | 412                  | 751        | 470                  | 839        | 451                  |
| Rhode Island.....            | 18         | 12                   | 44         | 19                   | 83         | 32                   | 95         | 54                   | 90         | 42                   |
| Connecticut.....             | 131        | 79                   | 168        | 102                  | 223        | 89                   | 377        | 150                  | 354        | 172                  |
| New York.....                | 1,089      | 616                  | 1,189      | 637                  | 1,261      | 739                  | 1,515      | 706                  | 1,434      | 699                  |
| New Jersey.....              | 215        | 292                  | 516        | 392                  | 465        | 290                  | 527        | 349                  | 508        | 321                  |
| Pennsylvania.....            | 673        | 382                  | 724        | 457                  | 713        | 412                  | 1,062      | 525                  | 1,218      | 555                  |
| South Atlantic Division:     |            |                      |            |                      |            |                      |            |                      |            |                      |
| Delaware.....                | 20         | 10                   | 16         | 9                    | 32         | 17                   | 33         | 7                    | 37         | 21                   |
| Maryland.....                | 125        | 73                   | 134        | 119                  | 117        | 44                   | 168        | 85                   | 209        | 85                   |
| District of Columbia.....    | 41         | 36                   | 70         | 40                   | 75         | 79                   | 62         | 38                   | 85         | 37                   |
| Virginia.....                | 116        | 91                   | 144        | 100                  | 162        | 94                   | 254        | 78                   | 218        | 106                  |
| West Virginia.....           | 3          | 3                    | 5          | 3                    | 0          | 0                    | 22         | 10                   | 30         | 13                   |
| North Carolina.....          | 119        | 90                   | 143        | 137                  | 148        | 184                  | 272        | 150                  | 344        | 186                  |
| South Carolina.....          | 151        | 101                  | 117        | 47                   | 111        | 72                   | 284        | 116                  | 207        | 120                  |
| Georgia.....                 | 326        | 252                  | 235        | 171                  | 144        | 101                  | 326        | 133                  | 356        | 207                  |
| Florida.....                 | 10         | 6                    | 11         | 13                   | 44         | 27                   | 46         | 15                   | 39         | 7                    |
| South Central Division:      |            |                      |            |                      |            |                      |            |                      |            |                      |
| Kentucky.....                | 136        | 93                   | 114        | 97                   | 150        | 119                  | 238        | 74                   | 295        | 159                  |
| Tennessee.....               | 240        | 159                  | 240        | 232                  | 367        | 212                  | 359        | 141                  | 415        | 205                  |
| Alabama.....                 | 72         | 81                   | 138        | 63                   | 71         | 45                   | 180        | 74                   | 169        | 68                   |
| Mississippi.....             | 121        | 122                  | 265        | 195                  | 267        | 265                  | 248        | 105                  | 311        | 161                  |
| Louisiana.....               | 76         | 50                   | 95         | 52                   | 73         | 37                   | 141        | 63                   | 136        | 67                   |
| Texas.....                   | 124        | 204                  | 164        | 176                  | 164        | 67                   | 313        | 89                   | 335        | 156                  |
| Arkansas.....                | 9          | 5                    | 33         | 13                   | 23         | 8                    | 73         | 40                   | 65         | 27                   |
| Oklahoma.....                |            |                      |            |                      |            |                      | 0          | 0                    |            |                      |
| Indian Territory.....        | 9          | 7                    | 8          | 3                    | 10         | 4                    | 55         | 35                   | 55         | 46                   |
| North Central Division:      |            |                      |            |                      |            |                      |            |                      |            |                      |
| Ohio.....                    | 466        | 138                  | 494        | 239                  | 396        | 217                  | 379        | 92                   | 262        | 106                  |
| Indiana.....                 | 58         | 27                   | 88         | 22                   | 114        | 119                  | 115        | 52                   | 143        | 75                   |
| Illinois.....                | 262        | 169                  | 171        | 105                  | 363        | 198                  | 363        | 157                  | 435        | 223                  |
| Michigan.....                | 86         | 37                   | 103        | 43                   | 95         | 49                   | 131        | 49                   | 146        | 63                   |
| Wisconsin.....               | 78         | 43                   | 148        | 74                   | 110        | 51                   | 222        | 66                   | 273        | 106                  |
| Minnesota.....               | 113        | 46                   | 130        | 87                   | 93         | 86                   | 184        | 94                   | 207        | 66                   |
| Iowa.....                    | 158        | 91                   | 210        | 123                  | 169        | 111                  | 299        | 122                  | 378        | 123                  |
| Missouri.....                | 226        | 127                  | 266        | 263                  | 316        | 249                  | 398        | 179                  | 452        | 155                  |
| North Dakota.....            | 3          | 0                    | 5          | 2                    | 3          | 3                    | 14         | 6                    | 11         | 6                    |
| South Dakota.....            | 23         | 16                   | 12         | 16                   | 34         | 18                   | 24         | 12                   | 17         | 10                   |
| Nebraska.....                | 60         | 35                   | 48         | 46                   | 50         | 24                   | 63         | 45                   | 76         | 47                   |
| Kansas.....                  | 61         | 40                   | 78         | 66                   | 94         | 27                   | 155        | 60                   | 149        | 57                   |
| Western Division:            |            |                      |            |                      |            |                      |            |                      |            |                      |
| Montana.....                 | 5          | 11                   | 3          | 2                    | 0          |                      | 5          | 3                    | 8          | 7                    |
| Wyoming.....                 | 4          | 4                    |            |                      |            |                      | 5          |                      | 0          | 0                    |
| Colorado.....                | 7          | 38                   | 23         | 13                   | 27         | 11                   | 25         | 8                    | 44         | 20                   |
| New Mexico.....              | 14         | 7                    | 1          | 2                    | 4          |                      | 7          | 7                    | 13         | 11                   |
| Arizona.....                 |            |                      |            |                      |            |                      |            |                      |            |                      |
| Utah.....                    | 136        | 70                   | 153        | 12                   | 85         | 17                   | 106        | 21                   | 75         | 27                   |
| Nevada.....                  | 0          | 0                    | 0          | 6                    |            |                      | 8          | 2                    | 0          | 0                    |
| Idaho.....                   | 21         | 13                   |            |                      |            |                      | 6          | 0                    | 9          | 5                    |
| Washington.....              | 33         | 27                   | 55         | 13                   | 47         | 18                   | 43         | 24                   | 36         | 29                   |
| Oregon.....                  | 56         | 27                   | 58         | 35                   | 54         | 24                   | 42         | 24                   | 59         | 48                   |
| California.....              | 82         | 110                  | 257        | 151                  | 189        | 138                  | 340        | 143                  | 394        | 220                  |

TABLE 60.—*Review of private high school statistics, 1890-1895.*

## COLLEGE PREPARATORY STUDENTS IN GRADUATING CLASS, MALE AND FEMALE.

| State or Territory.         | 1890-91. |         | 1891-92. |         | 1892-93. |         | 1893-94. |         | 1894-95. |         |
|-----------------------------|----------|---------|----------|---------|----------|---------|----------|---------|----------|---------|
|                             | Male.    | Female. | Male.    | Female. | Male.    | Female. | Male.    | Female. | Male.    | Female. |
| United States.....          | 2, 925   | 1, 437  | 3, 445   | 1, 784  | 3, 304   | 1, 696  | 3, 410   | 1, 612  | 3, 724   | 2, 009  |
| North Atlantic Division.... | 1, 536   | 427     | 1, 861   | 578     | 1, 659   | 606     | 1, 967   | 636     | 1, 973   | 676     |
| South Atlantic Division.... | 430      | 232     | 421      | 218     | 395      | 223     | 370      | 262     | 470      | 312     |
| South Central Division....  | 380      | 341     | 370      | 461     | 427      | 330     | 352      | 260     | 451      | 438     |
| North Central Division....  | 407      | 302     | 635      | 451     | 704      | 448     | 556      | 378     | 598      | 439     |
| Western Division.....       | 172      | 135     | 158      | 76      | 119      | 89      | 165      | 67      | 232      | 144     |
| North Atlantic Division:    |          |         |          |         |          |         |          |         |          |         |
| Maine.....                  | 82       | 19      | 91       | 30      | 65       | 36      | 83       | 46      | 103      | 48      |
| New Hampshire.....          | 87       | 16      | 172      | 17      | 31       | 40      | 82       | 40      | 146      | 28      |
| Vermont.....                | 62       | 32      | 68       | 72      | 72       | 47      | 74       | 24      | 56       | 28      |
| Massachusetts.....          | 196      | 88      | 245      | 137     | 260      | 152     | 338      | 132     | 323      | 128     |
| Rhode Island.....           | 10       | 2       | 12       | 7       | 26       | 6       | 45       | 9       | 38       | 4       |
| Connecticut.....            | 58       | 21      | 80       | 22      | 74       | 15      | 112      | 38      | 112      | 60      |
| New York.....               | 468      | 148     | 471      | 166     | 556      | 183     | 534      | 172     | 495      | 204     |
| New Jersey.....             | 262      | 30      | 352      | 40      | 262      | 28      | 292      | 57      | 279      | 42      |
| Pennsylvania.....           | 311      | 71      | 370      | 87      | 313      | 99      | 407      | 118     | 421      | 134     |
| South Atlantic Division:    |          |         |          |         |          |         |          |         |          |         |
| Delaware.....               | 6        | 4       | 5        | 4       | 7        | 10      | 3        | 4       | 15       | 6       |
| Maryland.....               | 60       | 13      | 91       | 28      | 34       | 10      | 42       | 43      | 49       | 36      |
| District of Columbia....    | 34       | 2       | 40       | 0       | 56       | 23      | 15       | 23      | 32       | 5       |
| Virginia.....               | 74       | 17      | 73       | 27      | 60       | 34      | 63       | 15      | 64       | 42      |
| West Virginia.....          | 2        | 1       | 2        | 1       | 0        | 0       | 9        | 1       | 13       | 0       |
| North Carolina.....         | 65       | 25      | 94       | 43      | 126      | 58      | 85       | 65      | 133      | 53      |
| South Carolina.....         | 47       | 54      | 30       | 17      | 41       | 31      | 68       | 48      | 53       | 67      |
| Georgia.....                | 136      | 116     | 76       | 95      | 54       | 47      | 78       | 55      | 106      | 101     |
| Florida.....                | 6        | 0       | 10       | 3       | 17       | 10      | 7        | 8       | 5        | 2       |
| South Central Division:     |          |         |          |         |          |         |          |         |          |         |
| Kentucky.....               | 57       | 36      | 59       | 38      | 83       | 36      | 43       | 31      | 93       | 66      |
| Tennessee.....              | 91       | 68      | 96       | 136     | 122      | 90      | 80       | 61      | 122      | 83      |
| Alabama.....                | 30       | 51      | 30       | 33      | 23       | 22      | 58       | 16      | 54       | 14      |
| Mississippi.....            | 67       | 55      | 109      | 86      | 149      | 116     | 58       | 47      | 83       | 78      |
| Louisiana.....              | 33       | 17      | 22       | 30      | 8        | 29      | 14       | 49      | 15       | 52      |
| Texas.....                  | 97       | 107     | 48       | 128     | 35       | 32      | 51       | 38      | 46       | 110     |
| Arkansas.....               | 2        | 3       | 4        | 9       | 4        | 4       | 24       | 16      | 13       | 14      |
| Oklahoma.....               |          |         |          |         |          |         | 0        | 0       |          |         |
| Indian Territory.....       | 3        | 4       | 2        | 1       | 3        | 1       | 24       | 11      | 25       | 21      |
| North Central Division:     |          |         |          |         |          |         |          |         |          |         |
| Ohio.....                   | 102      | 36      | 178      | 61      | 160      | 57      | 53       | 39      | 61       | 45      |
| Indiana.....                | 14       | 13      | 11       | 11      | 53       | 66      | 12       | 40      | 19       | 56      |
| Illinois.....               | 56       | 53      | 49       | 56      | 122      | 76      | 100      | 57      | 135      | 88      |
| Michigan.....               | 21       | 16      | 26       | 17      | 36       | 13      | 30       | 19      | 35       | 28      |
| Wisconsin.....              | 26       | 17      | 44       | 30      | 34       | 17      | 39       | 27      | 98       | 8       |
| Minnesota.....              | 24       | 22      | 58       | 29      | 59       | 27      | 58       | 36      | 38       | 28      |
| Iowa.....                   | 46       | 45      | 85       | 38      | 65       | 46      | 75       | 47      | 72       | 51      |
| Missouri.....               | 69       | 58      | 120      | 143     | 143      | 106     | 121      | 58      | 88       | 67      |
| North Dakota.....           | 0        | 0       | 0        | 2       | 1        | 2       | 3        | 3       | 3        | 3       |
| South Dakota.....           | 12       | 4       | 11       | 5       | 9        | 9       | 8        | 4       | 4        | 6       |
| Nebraska.....               | 20       | 15      | 20       | 26      | 7        | 17      | 22       | 23      | 22       | 25      |
| Kansas.....                 | 17       | 23      | 33       | 33      | 15       | 12      | 35       | 24      | 23       | 34      |
| Western Division:           |          |         |          |         |          |         |          |         |          |         |
| Montana.....                | 0        | 11      | 0        | 2       |          |         | 3        | 0       | 6        | 1       |
| Wyoming.....                | 0        | 4       |          |         |          |         |          |         | 0        | 0       |
| Colorado.....               | 20       | 18      | 8        | 5       | 1        | 10      | 7        | 1       | 10       | 10      |
| New Mexico.....             | 5        | 2       | 0        | 2       |          |         | 4        | 3       | 8        | 3       |
| Arizona.....                |          |         |          |         |          |         |          |         |          |         |
| Utah.....                   | 33       | 37      | 7        | 5       | 6        | 11      | 15       | 6       | 17       | 10      |
| Nevada.....                 | 0        | 0       | 0        | 6       |          |         | 0        | 2       | 0        | 0       |
| Idaho.....                  | 7        | 6       |          |         |          |         | 0        | 0       | 5        | 0       |
| Washington.....             | 12       | 15      | 10       | 3       | 14       | 4       | 18       | 6       | 19       | 10      |
| Oregon.....                 | 18       | 9       | 30       | 5       | 16       | 8       | 12       | 12      | 21       | 27      |
| California.....             | 77       | 33      | 103      | 48      | 82       | 56      | 106      | 37      | 146      | 83      |

TABLE 61.—*Review of private high school statistics, 1890-1895.*

## NUMBER OF VOLUMES IN LIBRARIES.

| State or Territory.          | 1890-91.    | 1891-92.    | 1892-93.    | 1893-94.    | 1894-95.    |
|------------------------------|-------------|-------------|-------------|-------------|-------------|
| United States.....           | 1, 026, 166 | 1, 131, 012 | 1, 219, 118 | 1, 420, 336 | 1, 637, 127 |
| North Atlantic Division..... | 463, 170    | 516, 746    | 650, 412    | 692, 154    | 732, 851    |
| South Atlantic Division..... | 101, 139    | 116, 166    | 118, 070    | 170, 531    | 168, 790    |
| South Central Division.....  | 131, 357    | 132, 900    | 113, 766    | 158, 869    | 196, 539    |
| North Central Division.....  | 262, 454    | 296, 699    | 272, 529    | 308, 999    | 454, 262    |
| Western Division.....        | 68, 046     | 68, 501     | 64, 341     | 89, 783     | 84, 685     |
| North Atlantic Division:     |             |             |             |             |             |
| Maine.....                   | 16, 220     | 41, 072     | 19, 279     | 34, 390     | 33, 855     |
| New Hampshire.....           | 21, 921     | 26, 276     | 34, 412     | 33, 170     | 37, 375     |
| Vermont.....                 | 17, 550     | 19, 025     | 23, 030     | 20, 846     | 23, 544     |
| Massachusetts.....           | 73, 755     | 80, 822     | 103, 208    | 111, 114    | 104, 315    |
| Rhode Island.....            | 1, 225      | 7, 422      | 12, 000     | 15, 300     | 8, 400      |
| Connecticut.....             | 23, 995     | 16, 585     | 26, 213     | 34, 306     | 35, 715     |
| New York.....                | 190, 678    | 201, 882    | 198, 218    | 231, 161    | 259, 853    |
| New Jersey.....              | 29, 170     | 39, 399     | 31, 450     | 82, 467     | 41, 310     |
| Pennsylvania.....            | 88, 656     | 84, 259     | 202, 602    | 129, 400    | 188, 484    |
| South Atlantic Division:     |             |             |             |             |             |
| Delaware.....                | 4, 250      | 2, 436      | 1, 825      | 2, 700      | 1, 700      |
| Maryland.....                | 33, 702     | 38, 620     | 37, 200     | 45, 633     | 38, 827     |
| District of Columbia.....    | 4, 450      | 10, 600     | 13, 125     | 30, 780     | 16, 200     |
| Virginia.....                | 15, 549     | 19, 664     | 24, 000     | 20, 845     | 5, 900      |
| West Virginia.....           | 425         | 25          | 1, 150      | 5, 025      | 29, 406     |
| North Carolina.....          | 17, 662     | 22, 052     | 24, 301     | 26, 183     | 26, 809     |
| South Carolina.....          | 10, 581     | 8, 475      | 5, 154      | 13, 142     | 15, 937     |
| Georgia.....                 | 11, 120     | 10, 444     | 8, 015      | 20, 973     | 27, 836     |
| Florida.....                 | 3, 400      | 3, 850      | 3, 300      | 5, 250      | 6, 175      |
| South Central Division:      |             |             |             |             |             |
| Kentucky.....                | 22, 805     | 15, 880     | 23, 875     | 35, 421     | 40, 843     |
| Tennessee.....               | 27, 674     | 30, 954     | 23, 808     | 28, 893     | 44, 413     |
| Alabama.....                 | 11, 602     | 9, 025      | 8, 060      | 18, 039     | 17, 287     |
| Mississippi.....             | 12, 959     | 19, 207     | 15, 900     | 13, 987     | 26, 943     |
| Louisiana.....               | 27, 425     | 30, 180     | 12, 005     | 22, 349     | 19, 050     |
| Texas.....                   | 21, 784     | 19, 936     | 23, 163     | 34, 079     | 38, 141     |
| Arkansas.....                | 3, 064      | 4, 998      | 4, 155      | 5, 214      | 7, 875      |
| Oklahoma.....                |             |             |             |             | 400         |
| Indian Territory.....        | 4, 044      | 2, 660      | 2, 800      | 887         | 1, 587      |
| North Central Division:      |             |             |             |             |             |
| Ohio.....                    | 75, 638     | 86, 325     | 72, 651     | 54, 327     | 160, 485    |
| Indiana.....                 | 10, 699     | 22, 650     | 30, 666     | 32, 129     | 38, 731     |
| Illinois.....                | 62, 240     | 47, 136     | 51, 700     | 51, 238     | 69, 403     |
| Michigan.....                | 8, 376      | 9, 962      | 8, 291      | 10, 065     | 18, 903     |
| Wisconsin.....               | 27, 805     | 31, 217     | 25, 670     | 30, 027     | 40, 750     |
| Minnesota.....               | 8, 956      | 12, 384     | 10, 505     | 17, 362     | 17, 070     |
| Iowa.....                    | 14, 078     | 26, 866     | 15, 275     | 26, 965     | 24, 472     |
| Missouri.....                | 34, 899     | 39, 460     | 34, 716     | 50, 073     | 48, 247     |
| North Dakota.....            | 2, 050      | 1, 250      | 1, 000      | 783         | 845         |
| South Dakota.....            | 1, 800      | 2, 774      | 2, 100      | 2, 700      | 3, 400      |
| Nebraska.....                | 8, 378      | 10, 385     | 11, 055     | 12, 130     | 15, 156     |
| Kansas.....                  | 7, 535      | 6, 290      | 8, 900      | 18, 200     | 16, 800     |
| Western Division:            |             |             |             |             |             |
| Montana.....                 | 632         | 972         | 485         | 560         | 700         |
| Wyoming.....                 | 700         |             | 300         | 800         | 100         |
| Colorado.....                | 14, 050     | 7, 100      | 8, 505      | 10, 733     | 4, 450      |
| New Mexico.....              | 2, 372      | 1, 000      | 1, 600      | 2, 180      | 2, 350      |
| Arizona.....                 |             |             |             |             |             |
| Utah.....                    | 9, 508      | 9, 620      | 7, 525      | 14, 326     | 11, 910     |
| Nevada.....                  | 650         | 1, 000      |             | 700         | 200         |
| Idaho.....                   | 700         |             |             | 0           | 1, 000      |
| Washington.....              | 4, 655      | 8, 437      | 7, 687      | 9, 275      | 9, 715      |
| Oregon.....                  | 11, 515     | 10, 414     | 11, 850     | 14, 809     | 12, 610     |
| California.....              | 23, 264     | 29, 958     | 26, 389     | 36, 409     | 41, 650     |



TABLE 62.—*Review of private high school statistics, 1890-1895.*

## VALUE OF GROUNDS, BUILDINGS, SCIENTIFIC APPARATUS, ETC.

| State or Territory.          | 1890-91.     | 1891-92.     | 1892-93.     | 1893-94.     | 1894-95.     |
|------------------------------|--------------|--------------|--------------|--------------|--------------|
| United States.....           | \$38,878,445 | \$38,767,099 | \$44,395,941 | \$49,495,897 | \$51,865,512 |
| North Atlantic Division..... | 21,453,554   | 21,132,258   | 25,233,665   | 26,704,281   | 27,306,136   |
| South Atlantic Division..... | 3,350,680    | 3,625,766    | 3,987,875    | 4,819,478    | 5,242,441    |
| South Central Division.....  | 3,357,525    | 2,810,530    | 3,208,450    | 5,132,995    | 6,039,425    |
| North Central Division.....  | 6,574,605    | 7,241,499    | 8,698,451    | 9,572,497    | 9,611,760    |
| Western Division.....        | 4,144,681    | 3,957,046    | 3,267,500    | 3,266,646    | 3,695,750    |
| North Atlantic Division:     |              |              |              |              |              |
| Maine.....                   | 340,000      | 380,660      | 366,300      | 692,200      | 605,360      |
| New Hampshire.....           | 660,957      | 754,957      | 783,000      | 661,197      | 728,825      |
| Vermont.....                 | 759,290      | 721,904      | 814,779      | 854,900      | 502,575      |
| Massachusetts.....           | 2,687,837    | 3,472,462    | 4,194,586    | 4,519,320    | 5,290,579    |
| Rhode Island.....            | 165,600      | 320,600      | 512,000      | 418,000      | 327,000      |
| Connecticut.....             | 667,500      | 441,800      | 1,285,465    | 1,263,400    | 995,200      |
| New York.....                | 6,807,632    | 6,431,718    | 8,159,184    | 7,994,309    | 9,127,056    |
| New Jersey.....              | 1,646,850    | 1,588,026    | 2,795,976    | 3,224,256    | 1,933,101    |
| Pennsylvania.....            | 7,717,888    | 7,021,131    | 6,322,375    | 7,076,699    | 7,790,440    |
| South Atlantic Division:     |              |              |              |              |              |
| Delaware.....                | 142,500      | 135,000      | 155,000      | 150,000      | 125,000      |
| Maryland.....                | 804,000      | 1,125,800    | 1,579,500    | 1,528,075    | 1,221,946    |
| District of Columbia.....    | 170,000      | 315,000      | 400,000      | 302,700      | 313,200      |
| Virginia.....                | 726,100      | 614,800      | 457,100      | 652,900      | 846,575      |
| West Virginia.....           | 7,000        | 7,400        | 7,400        | 115,800      | 150,300      |
| North Carolina.....          | 464,600      | 570,850      | 518,100      | 616,840      | 852,315      |
| South Carolina.....          | 299,400      | 197,740      | 232,825      | 395,750      | 302,150      |
| Georgia.....                 | 677,980      | 590,176      | 571,950      | 966,913      | 1,356,455    |
| Florida.....                 | 58,500       | 69,000       | 86,000       | 90,500       | 74,500       |
| South Central Division:      |              |              |              |              |              |
| Kentucky.....                | 420,450      | 319,589      | 431,300      | 1,001,890    | 1,112,045    |
| Tennessee.....               | 759,450      | 620,500      | 764,550      | 1,046,905    | 1,281,700    |
| Alabama.....                 | 434,450      | 522,650      | 291,700      | 467,300      | 519,830      |
| Mississippi.....             | 373,650      | 349,710      | 386,450      | 327,700      | 523,900      |
| Louisiana.....               | 243,650      | 373,165      | 349,550      | 294,500      | 322,500      |
| Texas.....                   | 747,425      | 476,625      | 694,000      | 1,665,100    | 1,853,600    |
| Arkansas.....                | 148,450      | 86,800       | 163,000      | 217,550      | 237,100      |
| Oklahoma.....                |              |              |              | 18,000       | 43,000       |
| Indian Territory.....        | 230,000      | 62,100       | 127,300      | 94,050       | 125,750      |
| North Central Division:      |              |              |              |              |              |
| Ohio.....                    | 816,350      | 986,990      | 1,180,024    | 987,812      | 972,075      |
| Indiana.....                 | 206,500      | 174,500      | 331,675      | 314,200      | 346,425      |
| Illinois.....                | 1,695,360    | 1,275,500    | 1,607,000    | 1,951,300    | 1,870,090    |
| Michigan.....                | 475,050      | 665,894      | 672,667      | 657,869      | 746,762      |
| Wisconsin.....               | 588,500      | 561,540      | 860,000      | 1,207,400    | 1,033,000    |
| Minnesota.....               | 808,200      | 692,000      | 740,250      | 1,008,450    | 1,097,673    |
| Iowa.....                    | 359,250      | 440,250      | 38,000       | 575,000      | 568,300      |
| Missouri.....                | 823,505      | 1,289,575    | 1,967,035    | 1,568,725    | 1,635,400    |
| North Dakota.....            | 57,000       | 48,000       | 25,000       | 33,500       | 43,500       |
| South Dakota.....            | 80,000       | 100,000      | 126,200      | 136,200      | 139,000      |
| Nebraska.....                | 315,300      | 645,500      | 737,200      | 385,656      | 430,600      |
| Kansas.....                  | 349,650      | 361,750      | 413,400      | 746,585      | 728,935      |
| Western Division:            |              |              |              |              |              |
| Montana.....                 | 68,300       | 65,300       | 7,000        | 60,000       | 56,500       |
| Wyoming.....                 | 0            |              |              | 40,000       | 11,600       |
| Colorado.....                | 486,200      | 357,000      | 384,000      | 350,000      | 485,000      |
| New Mexico.....              | 63,000       | 25,000       | 50,000       | 97,000       | 73,000       |
| Arizona.....                 |              |              |              |              |              |
| Utah.....                    | 325,381      | 312,500      | 267,000      | 474,046      | 378,000      |
| Nevada.....                  | 50,000       | 40,000       |              | 6,000        |              |
| Idaho.....                   | 10,000       |              |              | 0            | 3,000        |
| Washington.....              | 960,700      | 923,600      | 449,000      | 199,000      | 233,000      |
| Oregon.....                  | 409,600      | 524,000      | 350,000      | 339,100      | 286,300      |
| California.....              | 1,771,500    | 1,709,646    | 1,760,500    | 1,701,500    | 2,139,350    |

TABLE 63.—*Review of private high school statistics, 1890-1895.*

STATE, COUNTY, AND MUNICIPAL APPROPRIATIONS.\*

| State or Territory.          | 1890-91.   | 1891-92.   | 1892-93.   | 1893-94.   | 1894-95.   |
|------------------------------|------------|------------|------------|------------|------------|
| United States.....           | \$192, 245 | \$183, 117 | \$201, 440 | \$172, 163 | \$157, 293 |
| North Atlantic Division..... | 28, 576    | 32, 537    | 43, 221    | 48, 508    | 35, 668    |
| South Atlantic Division..... | 46, 247    | 43, 678    | 35, 946    | 48, 819    | 43, 958    |
| South Central Division.....  | 98, 504    | 92, 085    | 56, 143    | 66, 786    | 59, 222    |
| North Central Division.....  | 13, 130    | 13, 505    | 66, 130    | 8, 050     | 17, 445    |
| Western Division.....        | 5, 788     | 1, 312     | 0          | 0          | 1, 000     |
| North Atlantic Division:     |            |            |            |            |            |
| Maine.....                   | 6, 370     | 9, 730     | 12, 010    | 15, 612    | 11, 370    |
| New Hampshire.....           | 1, 150     | 1, 250     | 800        | 800        | 900        |
| Vermont.....                 | 832        | 807        | 1, 584     | 2, 349     | 1, 231     |
| Massachusetts.....           | 1, 490     | 2, 975     | 7, 575     | 2, 550     | 2, 950     |
| Rhode Island.....            | 0          | 0          | 0          | 7, 000     | 0          |
| Connecticut.....             | 0          | 200        | 1, 750     | 2, 700     | 2, 700     |
| New York.....                | 17, 534    | 15, 705    | 17, 480    | 16, 297    | 14, 817    |
| New Jersey.....              | 1, 200     | 1, 200     | 1, 200     | 1, 200     | 1, 700     |
| Pennsylvania.....            | 0          | 670        | 822        | 0          | 0          |
| South Atlantic Division:     |            |            |            |            |            |
| Delaware.....                | 0          | 0          | 0          | 0          | 0          |
| Maryland.....                | 8, 700     | 5, 050     | 8, 800     | 6, 800     | 4, 876     |
| District of Columbia.....    | 0          | 0          | 0          | 0          | 0          |
| Virginia.....                | 1, 240     | 1, 220     | 650        | 1, 435     | 1, 613     |
| West Virginia.....           | 0          | 0          | 0          | 0          | 0          |
| North Carolina.....          | 4, 477     | 2, 847     | 1, 547     | 2, 451     | 2, 263     |
| South Carolina.....          | 6, 380     | 7, 647     | 7, 630     | 9, 353     | 6, 295     |
| Georgia.....                 | 24, 900    | 26, 914    | 16, 319    | 27, 780    | 28, 911    |
| Florida.....                 | 550        | 0          | 1, 000     | 1, 000     | 0          |
| South Central Division:      |            |            |            |            |            |
| Kentucky.....                | 3, 369     | 4, 251     | 4, 691     | 3, 900     | 3, 262     |
| Tennessee.....               | 13, 457    | 12, 757    | 9, 326     | 11, 489    | 12, 983    |
| Alabama.....                 | 5, 033     | 3, 058     | 2, 850     | 4, 648     | 5, 999     |
| Mississippi.....             | 17, 265    | 20, 979    | 13, 706    | 15, 268    | 16, 936    |
| Louisiana.....               | 1, 350     | 1, 400     | 0          | 500        | 500        |
| Texas.....                   | 22, 530    | 20, 540    | 7, 510     | 17, 058    | 16, 233    |
| Arkansas.....                | 3, 500     | 3, 000     | 2, 160     | 3, 923     | 3, 304     |
| Oklahoma.....                |            |            |            | 0          | 0          |
| Indian Territory.....        | 32, 000    | 26, 100    | 15, 900    | 10, 000    | 0          |
| North Central Division:      |            |            |            |            |            |
| Ohio.....                    | 1, 500     | 0          | 0          | 0          | 245        |
| Indiana.....                 | 9, 030     | 8, 330     | 8, 330     | 1, 150     | 16, 400    |
| Illinois.....                | 0          | 1, 200     | 56, 700    | 1, 500     | 800        |
| Michigan.....                | 0          | 0          | 0          | 0          | 0          |
| Wisconsin.....               | 0          | 0          | 0          | 0          | 0          |
| Minnesota.....               | 0          | 0          | 0          | 0          | 0          |
| Iowa.....                    | 0          | 0          | 0          | 0          | 0          |
| Missouri.....                | 2, 600     | 3, 975     | 1, 100     | 5, 100     | 0          |
| North Dakota.....            | 0          | 0          | 0          | 0          | 0          |
| South Dakota.....            | 0          | 0          | 0          | 0          | 0          |
| Nebraska.....                | 0          | 0          | 0          | 300        | 0          |
| Kansas.....                  | 0          | 0          | 0          | 0          | 0          |
| Western Division:            |            |            |            |            |            |
| Montana.....                 | 0          | 0          | 0          | 0          | 0          |
| Wyoming.....                 | 0          | 0          | 0          | 0          | 0          |
| Colorado.....                | 0          | 0          | 0          | 0          | 0          |
| New Mexico.....              | 0          | 0          | 0          | 0          | 0          |
| Arizona.....                 | 0          | 0          | 0          | 0          | 0          |
| Utah.....                    | 500        | 0          | 0          | 0          | 1, 000     |
| Nevada.....                  | 0          | 0          | 0          | 0          | 0          |
| Idaho.....                   | 0          | 0          | 0          | 0          | 0          |
| Washington.....              | 0          | 0          | 0          | 0          | 0          |
| Oregon.....                  | 660        | 662        | 0          | 0          | 0          |
| California.....              | 4, 628     | 650        | 0          | 0          | 0          |

\* Since 1893 many schools formerly classed as private have been transferred to the list of public schools.

TABLE 64.—*Review of private high school statistics, 1890-1895.*

## RECEIPTS FOR TUITION AND INCIDENTAL FEES.

| State or Territory.          | 1890-91.      | 1891-92.      | * 1892-93.    | 1893-94.      | 1894-95.      |
|------------------------------|---------------|---------------|---------------|---------------|---------------|
| United States .....          | \$4, 414, 655 | \$4, 095, 543 | \$1, 545, 968 | \$5, 531, 271 | \$6, 002, 380 |
| North Atlantic Division..... | 2, 065, 027   | 1, 995, 450   | 1, 350, 204   | 2, 675, 923   | 3, 109, 385   |
| South Atlantic Division..... | 500, 229      | 456, 542      | 66, 380       | 602, 442      | 629, 552      |
| South Central Division.....  | 552, 541      | 563, 224      | 35, 020       | 717, 901      | 807, 488      |
| North Central Division.....  | 889, 633      | 817, 141      | 55, 817       | 1, 181, 853   | 1, 153, 628   |
| Western Division.....        | 407, 225      | 263, 186      | 38, 547       | 322, 799      | 302, 327      |
| North Atlantic Division:     |               |               |               |               |               |
| Maine.....                   | 25, 634       | 30, 740       | 17, 235       | 38, 764       | 45, 660       |
| New Hampshire.....           | 53, 428       | 48, 930       | 46, 143       | 38, 388       | 346, 539      |
| Vermont.....                 | 70, 889       | 44, 922       | 21, 378       | 66, 358       | 42, 418       |
| Massachusetts.....           | 363, 935      | 371, 208      | 129, 385      | 472, 792      | 580, 972      |
| Rhode Island.....            | 27, 000       | 37, 498       | 14, 135       | 48, 097       | 73, 872       |
| Connecticut.....             | 44, 923       | 99, 899       | 38, 950       | 148, 350      | 132, 863      |
| New York.....                | 934, 480      | 805, 629      | 65, 818       | 1, 047, 712   | 1, 064, 970   |
| New Jersey.....              | 263, 953      | 244, 933      | 40, 695       | 336, 314      | 293, 837      |
| Pennsylvania.....            | 280, 775      | 311, 691      | 976, 465      | 479, 148      | 528, 257      |
| South Atlantic Division:     |               |               |               |               |               |
| Delaware.....                | 22, 413       | 22, 750       | 10, 350       | 21, 900       | 21, 609       |
| Maryland.....                | 91, 294       | 93, 262       | 40, 700       | 123, 070      | 108, 115      |
| District of Columbia.....    | 16, 846       | 17, 000       | 7, 500        | 33, 400       | 24, 361       |
| Virginia.....                | 125, 656      | 101, 675      | 800           | 150, 207      | 132, 432      |
| West Virginia.....           | 2, 100        | 3, 800        | 0             | 13, 515       | 16, 628       |
| North Carolina.....          | 103, 504      | 111, 096      | 350           | 106, 572      | 138, 527      |
| South Carolina.....          | 35, 235       | 23, 498       | 1, 380        | 46, 322       | 55, 816       |
| Georgia.....                 | 97, 657       | 76, 819       | 5, 300        | 97, 463       | 125, 190      |
| Florida.....                 | 5, 524        | 6, 642        | 0             | 9, 993        | 6, 874        |
| South Central Division:      |               |               |               |               |               |
| Kentucky.....                | 79, 116       | 88, 856       | 2, 300        | 148, 250      | 196, 912      |
| Tennessee.....               | 132, 481      | 118, 624      | 26, 150       | 175, 549      | 193, 820      |
| Alabama.....                 | 66, 180       | 66, 309       | 0             | 71, 862       | 75, 229       |
| Mississippi.....             | 58, 900       | 83, 540       | 770           | 63, 767       | 75, 100       |
| Louisiana.....               | 84, 872       | 79, 716       | 3, 600        | 54, 972       | 61, 925       |
| Texas.....                   | 97, 168       | 102, 785      | 1, 000        | 157, 459      | 148, 181      |
| Arkansas.....                | 21, 069       | 20, 894       | 1, 200        | 35, 942       | 45, 621       |
| Oklahoma.....                |               |               |               | 0             | 1, 000        |
| Indian Territory.....        | 12, 755       | 2, 500        | 0             | 10, 100       | 9, 700        |
| North Central Division:      |               |               |               |               |               |
| Ohio.....                    | 181, 850      | 46, 859       | 17, 056       | 174, 167      | 145, 056      |
| Indiana.....                 | 15, 249       | 20, 591       | 800           | 25, 584       | 55, 855       |
| Illinois.....                | 208, 666      | 138, 166      | 10, 783       | 240, 955      | 285, 636      |
| Michigan.....                | 101, 510      | 133, 703      | 1, 120        | 64, 574       | 53, 979       |
| Wisconsin.....               | 61, 073       | 40, 595       | 1, 380        | 154, 465      | 162, 033      |
| Minnesota.....               | 38, 364       | 122, 604      | 10, 429       | 157, 882      | 126, 663      |
| Iowa.....                    | 60, 861       | 47, 366       | 0             | 74, 794       | 60, 809       |
| Missouri.....                | 167, 282      | 214, 473      | 60            | 223, 741      | 160, 965      |
| North Dakota.....            | 350           | 2, 550        | 0             | 8, 102        | 5, 302        |
| South Dakota.....            | 4, 062        | 5, 931        | 0             | 9, 083        | 13, 368       |
| Nebraska.....                | 17, 709       | 21, 306       | 1, 150        | 17, 158       | 13, 431       |
| Kansas.....                  | 32, 666       | 22, 997       | 13, 039       | 31, 348       | 70, 531       |
| Western Division:            |               |               |               |               |               |
| Montana.....                 | 3, 500        | 3, 100        | 0             | 4, 250        | 6, 500        |
| Wyoming.....                 | 0             |               |               | 0             | 250           |
| Colorado.....                | 14, 602       | 24, 468       | 250           | 21, 580       | 24, 050       |
| New Mexico.....              | 17, 200       | 1, 500        | 0             | 4, 900        | 8, 100        |
| Arizona.....                 |               |               |               |               |               |
| Utah.....                    | 59, 293       | 42, 023       | 14, 200       | 31, 755       | 29, 672       |
| Nevada.....                  | 7, 000        |               |               | 4, 800        |               |
| Idaho.....                   | 1, 500        |               |               | 200           | 800           |
| Washington.....              | 40, 073       | 24, 249       | 6, 550        | 32, 700       | 23, 150       |
| Oregon.....                  | 30, 669       | 25, 954       | 17, 547       | 16, 112       | 15, 445       |
| California.....              | 239, 388      | 141, 892      | 0             | 206, 502      | 194, 360      |

\* Incomplete returns on this item in 1893.

TABLE 65.—*Review of private high school statistics, 1890-1895.*

## TOTAL INCOME FROM ALL SOURCES.

| State or Territory.           | 1890-91.      | 1891-92.      | 1892-93.      | 1893-94.      | 1894-95.      |
|-------------------------------|---------------|---------------|---------------|---------------|---------------|
| United States .....           | \$3, 894, 660 | \$4, 278, 660 | \$6, 333, 938 | \$8, 204, 352 | \$8, 878, 218 |
| North Atlantic Division ..... | 2, 034, 704   | 2, 027, 987   | 3, 823, 191   | 4, 710, 743   | 4, 976, 878   |
| South Atlantic Division ..... | 499, 536      | 500, 220      | 472, 631      | 838, 150      | 934, 962      |
| South Central Division .....  | 516, 280      | 655, 309      | 583, 408      | 869, 301      | 1, 050, 456   |
| North Central Division .....  | 610, 338      | 830, 646      | 1, 125, 299   | 1, 352, 113   | 1, 805, 577   |
| Western Division .....        | 233, 802      | 264, 498      | 329, 409      | 434, 045      | 410, 345      |
| North Atlantic Division:      |               |               |               |               |               |
| Maine .....                   | 44, 802       | 40, 470       | 56, 771       | 79, 213       | 85, 455       |
| New Hampshire .....           | 87, 843       | 50, 180       | 100, 879      | 141, 291      | 411, 913      |
| Vermont .....                 | 48, 551       | 45, 729       | 70, 642       | 125, 530      | 88, 373       |
| Massachusetts .....           | 260, 388      | 374, 183      | 577, 878      | 621, 105      | 890, 153      |
| Rhode Island .....            | 21, 600       | 37, 498       | 63, 255       | 89, 282       | 75, 518       |
| Connecticut .....             | 49, 184       | 100, 099      | 102, 050      | 220, 814      | 189, 597      |
| New York .....                | 661, 648      | 821, 334      | 1, 199, 740   | 1, 214, 884   | 1, 257, 238   |
| New Jersey .....              | 214, 678      | 246, 133      | 342, 202      | 549, 794      | 324, 361      |
| Pennsylvania .....            | 646, 010      | 312, 361      | 1, 318, 774   | 1, 668, 836   | 1, 654, 270   |
| South Atlantic Division:      |               |               |               |               |               |
| Delaware .....                | 21, 400       | 22, 750       | 34, 150       | 21, 900       | 23, 569       |
| Maryland .....                | 185, 134      | 98, 312       | 134, 622      | 208, 929      | 231, 253      |
| District of Columbia .....    | 10, 627       | 17, 000       | 18, 309       | 34, 202       | 30, 839       |
| Virginia .....                | 65, 071       | 102, 895      | 85, 768       | 171, 090      | 155, 240      |
| West Virginia .....           | 2, 850        | 3, 800        | 4, 400        | 22, 531       | 21, 100       |
| North Carolina .....          | 66, 811       | 113, 943      | 87, 334       | 124, 669      | 175, 369      |
| South Carolina .....          | 40, 398       | 31, 145       | 37, 493       | 64, 260       | 72, 672       |
| Georgia .....                 | 102, 311      | 103, 733      | 59, 734       | 173, 100      | 214, 164      |
| Florida .....                 | 4, 934        | 6, 642        | 10, 830       | 17, 465       | 10, 756       |
| South Central Division:       |               |               |               |               |               |
| Kentucky .....                | 76, 575       | 93, 107       | 92, 883       | 171, 205      | 286, 770      |
| Tennessee .....               | 111, 148      | 131, 381      | 188, 843      | 208, 652      | 229, 198      |
| Alabama .....                 | 76, 339       | 69, 367       | 36, 691       | 84, 940       | 85, 481       |
| Mississippi .....             | 77, 842       | 104, 519      | 86, 675       | 85, 363       | 115, 298      |
| Louisiana .....               | 40, 148       | 81, 116       | 44, 969       | 63, 907       | 71, 947       |
| Texas .....                   | 89, 959       | 123, 325      | 92, 438       | 184, 332      | 189, 055      |
| Arkansas .....                | 11, 869       | 23, 894       | 22, 216       | 48, 610       | 55, 107       |
| Oklahoma .....                |               |               |               | 0             | 2, 800        |
| Indian Territory .....        | 32, 400       | 28, 600       | 18, 588       | 22, 301       | 14, 800       |
| North Central Division:       |               |               |               |               |               |
| Ohio .....                    | 119, 807      | 46, 859       | 225, 359      | 219, 990      | 172, 935      |
| Indiana .....                 | 25, 095       | 28, 921       | 42, 962       | 36, 444       | 92, 790       |
| Illinois .....                | 100, 438      | 159, 366      | 219, 763      | 257, 443      | 349, 137      |
| Michigan .....                | 21, 730       | 133, 703      | 129, 075      | 70, 710       | 100, 027      |
| Wisconsin .....               | 70, 955       | 40, 595       | 72, 584       | 163, 740      | 188, 823      |
| Minnesota .....               | 95, 502       | 122, 604      | 124, 602      | 174, 349      | 155, 685      |
| Iowa .....                    | 31, 900       | 47, 366       | 3, 109        | 87, 130       | 82, 218       |
| Missouri .....                | 83, 506       | 218, 448      | 223, 185      | 246, 144      | 204, 834      |
| North Dakota .....            | 4, 400        | 2, 550        | 2, 000        | 8, 707        | 8, 034        |
| South Dakota .....            | 3, 148        | 5, 931        | 8, 383        | 12, 646       | 21, 493       |
| Nebraska .....                | 35, 520       | 21, 306       | 26, 338       | 32, 398       | 31, 831       |
| Kansas .....                  | 18, 537       | 22, 997       | 47, 948       | 42, 401       | 97, 765       |
| Western Division:             |               |               |               |               |               |
| Montana .....                 | 0             | 3, 100        | 1, 375        | 4, 250        | 7, 000        |
| Wyoming .....                 | 0             |               |               | 0             | 1, 650        |
| Colorado .....                | 8, 559        | 24, 468       | 27, 851       | 34, 227       | 29, 588       |
| New Mexico .....              | 11, 000       | 1, 500        | 500           | 8, 500        | 12, 404       |
| Arizona .....                 |               |               |               |               |               |
| Utah .....                    | 31, 994       | 42, 023       | 39, 796       | 89, 593       | 80, 658       |
| Nevada .....                  | 2, 800        |               |               | 5, 400        |               |
| Idaho .....                   | 3, 000        |               |               | 200           | 1, 300        |
| Washington .....              | 40, 353       | 24, 249       | 45, 351       | 37, 550       | 29, 750       |
| Oregon .....                  | 22, 899       | 26, 616       | 29, 576       | 27, 686       | 18, 477       |
| California .....              | 113, 206      | 142, 542      | 184, 960      | 226, 589      | 229, 520      |





## CHAPTER III.

### STATISTICS OF NORMAL SCHOOLS.

A large proportion of the normal schools in the United States, the public as well as the private institutions, maintain various courses of study in addition to the courses designed for the professional training of teachers. Great care has been exercised in collecting the statistics of normal schools to obtain correct returns of the number of students actually pursuing teachers' training courses. The number of students pursuing courses especially organized for teachers in universities and colleges, in academies and high schools, has also been ascertained by special inquiry. A summary of the statistics thus obtained shows that in the scholastic year 1894-95 there were in the United States 80,839 students pursuing training courses for teachers. These students were distributed as follows: In public normal schools, 36,491; in private normal schools, 22,013; in universities and colleges, 6,402; in public high schools, 6,809; in private high schools, 9,124.

The number of graduates from the public normal schools was 5,492 and the number from the private normal schools 3,094. The number graduating from teachers' training courses in other institutions is not known. The public and private normal schools, with 58,504 normal students, sent out 8,586 graduates who had pursued teachers' training courses. The per cent of graduates to the total number of normal students was 14.68. If it be assumed that the percentage of graduates to the number of normal students in other institutions, 22,335, was 14.68, then these colleges, high schools, and academies must have graduated 3,279 normal students. It will thus be seen that the number of trained teachers graduated from the various institutions enumerated must have been about 11,865 for the class of 1895.

Some idea of the growth of normal schools in the past ten years may be gained by an inspection of the following table, which shows the number of schools, instructors, students, and graduates in 1884-85 and in 1894-95:

*Public and private normal schools.*

| Year.        | Public normal schools. |                   |           |                 | Private normal schools. |                   |           |                 |
|--------------|------------------------|-------------------|-----------|-----------------|-------------------------|-------------------|-----------|-----------------|
|              | Schools.               | Instruct-<br>ors. | Students. | Gradu-<br>ates. | Schools.                | Instruct-<br>ors. | Students. | Gradu-<br>ates. |
| 1884-85..... | 131                    | 1,234             | 26,090    | 3,162           | 132                     | 842               | 17,068    | 1,366           |
| 1894-95..... | 155                    | 1,584             | 36,491    | 5,492           | 201                     | 1,059             | 22,013    | 3,094           |

The Education Report for 1884-85 does not show the number of students in teachers' training courses in universities and colleges, public and private high schools. It can be stated as a fact, however, that there has been a large increase in the number of students pursuing such courses in these institutions within the last ten years.

#### PUBLIC NORMAL SCHOOLS.

The statistics of public normal schools will be found summarized in Tables 1 to 6 in this chapter. Table 1 gives the number of schools in each State and the number of teachers employed in the public normal schools of each State. In the 155 schools there were 1,584 teachers instructing normal students, 649 males and 935 females. There were 467 teachers wholly for other departments, 119 males and 348 females. The total number of teachers in the 155 schools was 2,051.

The numbers of students in several courses of study are shown in Table 2. There were 36,491 normal students, 10,353 males and 26,138 females. There were 289 students in business courses, 5,247 in secondary grades and 15,677 in elementary grades. These numbers make a total of 57,704, as shown in the third column of Table 3. There were 1,298 colored normal students included in the third column of Table 2. The last column of Table 3 shows that there were 19,461 pupils in the model schools connected with public normal schools. This number is not included in the grand total summarized in the third column of Table 3. In many instances certain grades in city systems are used as model schools by public normals, but generally the model schools are organized in the secondary and elementary grades which belong to the normal schools.

Table 4 shows the number of graduates from the public normal schools in the class of 1895. As already stated, there were 5,492 normal graduates, 1,013 males and 4,479 females. There were 291 graduates in business courses and 374 in other courses. Of the normal graduates, more than 81 per cent were women. In the North Atlantic Division the female graduates were more than 86 per cent of the total number of normal graduates; in the North Central Division the per cent was 74; in the South Atlantic nearly 85; in the South Central 67, and in the Western Division nearly 90.

The aggregate amount received by the 155 public normal schools from State, county, and city appropriations for support for the year 1894-95 was \$1,917,375, as shown in Table 5. The amount received from tuition and other fees was \$370,849. Nine States received \$58,808 from productive funds. The amounts received from other sources and unclassified aggregated \$362,431. A portion of this sum should be distributed in the three preceding columns of Table 5, but it can not be properly apportioned here on account of the manner in which certain schools reported their income. The total income of the 155 schools for the year 1894-95 was \$2,709,463.

Table 6 shows that 119 public normal schools had libraries, and that these libraries contained 300,776 volumes. The estimated value of these libraries was \$369,333.

It appears also that the value of buildings, grounds, and scientific apparatus was \$14,454,275, and that the value of other property was \$410,347.

The aggregate amount appropriated by States, counties, and cities for buildings and improvements for public normal schools in 1894-95 was \$1,003,933.

#### PRIVATE NORMAL SCHOOLS.

The 201 private normal schools reporting to this office in 1895 had 1,059 teachers instructing normal students, 616 males and 443 females (See Table 7.) There were 900 other teachers, 397 males and 503 females instructing pupils in other departments. The total number of instructors in the 201 schools was 1,959.

Table 8 shows the distribution of students according to four classes or courses. In these private normal schools there were 22,013 normal students proper, 11,442 males and 10,571 females. It will be noted that nearly 65 per cent of these private normal students are in the North Central Division—that is, 14,374 of the 22,013 students. Indiana alone had 4,494 of these students, and Ohio 2,129. Five States of the North Atlantic Division had no private normal schools.

In the 201 private normal schools there were 5,210 students in business courses, 3,547 males and 1,663 females. Other students in grades equivalent to secondary or high-school grades numbered 8,589. In these secondary grades there were 4,568 males and 4,021 females. In the elementary grades there were 18,264 pupils, 8,990 boys and 9,274 girls. The total enrollment in the four departments was 54,076 students, 28,578 males and 25,498 females, as shown in the first three columns of Table 9. This table also shows that there were 1,931 colored students included in the enumeration of normal students in Table 8. In the model schools utilized by the normal schools 3,728 children were reported.

Table 10 shows that there were 3,094 graduates from the normal departments, 1,612 males and 1,482 females. There were 2,015 graduates in business courses and 1,253 in other courses.

Table 11 exhibits the income of private normal schools from various sources. In sixteen States these schools received aid from State, county, or city appropriations aggregating \$57,399. The aggregate received from tuition and other fees, so far as reported, was \$626,768. The amount received from productive funds by schools in sixteen States was \$40,404. The amount received from other sources and unclassified was \$386,095. The incomes of the 201 schools for the year 1894-95, so far as reported, aggregated \$1,110,666.

The value of buildings and other property owned by private normal schools is shown in Table 12. Of the 201 schools 147 were reported as



having libraries. These libraries contained 180,873 volumes of an estimated value of \$148,144. The aggregate value of buildings, grounds, scientific apparatus, etc., was \$5,905,421. The value of endowments and other property reported by schools in twenty States was \$839,243, and the value of benefactions received during the year 1894-95 was \$254,001.

The per cent of male and female students and the per cent of graduates to the number of normal students, for public and for private normal schools in each State may be learned from an inspection of Table 13. In the public normal schools the per cent of male students was only 28.37, while in the private normal schools the per cent of males was 51.98.

#### DISTRIBUTION OF NORMAL STUDENTS.

The number of students pursuing teachers' training courses in other institutions than normal schools is shown in Table 14. In 192 colleges and universities there were 6,402 normal students. In 433 public high schools there were 6,809 normal students, 2,007 males and 4,802 females. In 458 private high schools there were 9,124 such students, 3,900 males and 5,224 females. The total number of normal students in the three classes of institutions was 22,335.

Table 15 recapitulates the totals of preceding tables, exhibiting the number of normal students in each of the five classes of institutions. The last column shows the total number of normal students in the United States as reported to this office to be 80,839.

#### REVIEW OF PUBLIC NORMAL SCHOOL STATISTICS.

The statistics of public normal schools for the past five years are reviewed in Tables 16 to 21. Table 16 shows the number of schools, and the number of teachers employed in the normal departments in each State reported to this office each year from 1891 to 1895. The number of schools increased from 131 in 1891, to 155 in 1895. Table 17 shows the number of normal students and the number of normal graduates each year for five years. Table 18 shows the number of each sex in the normal departments each year. Table 19 exhibits the number of teachers and students in the other departments. Table 20 shows the amounts appropriated by States, counties, and cities for the support of these public normal schools each year. The aggregate in 1890-91 was \$1,285,700, and in 1894-95 it was \$1,917,375. The public appropriations for buildings and improvements for each of the five years are shown in Table 21.

#### NORMAL STUDENTS IN COLLEGES AND UNIVERSITIES.

More than 200 of the colleges and universities of the United States now offer courses of study designed to meet the demand for the professional training of teachers. In 27 of these institutions there are

organized departments of pedagogy maintaining courses of study for teachers leading to degrees.

In 1890 there were 3,414 students in 114 universities and colleges pursuing courses of study designed for the training of teachers. In 1891 the number of such students was 3,978. For the scholastic year 1892-93 there were 5,232 students training as teachers in 155 such institutions. In 1893-94 the number had increased to 5,500 students in 173 universities and colleges. For the year 1894-95 the list of institutions had increased to 192 and the number of normal students to 6,402. In the following table is given a list of universities and colleges which have in the past three years reported students in teachers' training courses. The number of students reported for each year is given. Institutions marked with an asterisk (\*) have departments of pedagogy, but did not in every instance report pedagogical students separately.

*Colleges and universities reporting students in teachers' training courses.*

| Location.                    | Institution.                            | Normal students. |       |       |
|------------------------------|---|------------------|-------|-------|
|                              |   | 1893.            | 1894. | 1895. |
| <i>Alabama.</i>              |   |                  |       |       |
| Blountsville .....           | Blount College .....                    |                  | 17    |       |
| Lafayette .....              | Lafayette College .....                 | 29               | 15    | 9     |
| Selma .....                  | Selma University .....                  | 150              | 44    | 40    |
| Gadsden .....                | Jones College for Young Ladies .....    |                  | 19    | 17    |
| Tuscaloosa .....             | Central Female College .....            | 14               |       |       |
| <i>Arkansas.</i>             |   |                  |       |       |
| Arkadelphia .....            | Ouachita Baptist College .....          | 40               |       | 40    |
| Clarksville .....            | Arkansas Cumberland College .....       |                  | 17    | 17    |
| Little Rock .....            | Arkansas Baptist College .....          |                  | 8     |       |
| Do .....                     | Little Rock University .....            |                  | 12    |       |
| Do .....                     | Philander Smith College .....           |                  | 3     |       |
| Mountain Home .....          | Mountain Home Baptist College .....     |                  | 71    |       |
| Conway .....                 | Central Baptist College .....           |                  | 11    | 7     |
| Do .....                     | Hendrix College .....                   | 10               |       |       |
| <i>California.</i>           |   |                  |       |       |
| Berkeley .....               | University of California* .....         |                  | 57    | 100   |
| College City .....           | Pierce Christian College .....          | 15               | 14    | 16    |
| Los Angeles .....            | St. Vincent's College .....             |                  |       | 30    |
| Oakland .....                | California College .....                |                  | 3     |       |
| Pasadena .....               | Throop Polytechnic Institute .....      |                  |       | 16    |
| Santa Rosa .....             | Pacific Methodist College .....         |                  | 6     |       |
| Stanford University .....    | Leland Stanford, jr., University* ..... |                  | 37    | 153   |
| Woodbridge .....             | San Joaquin Valley College .....        | 13               | 13    | 11    |
| San Jose .....               | College of Notre Dame .....             | 24               | 20    | 35    |
| <i>Colorado.</i>             |   |                  |       |       |
| Boulder .....                | University of Colorado* .....           |                  |       |       |
| Del Norte .....              | College of the Southwest .....          | 4                |       |       |
| <i>District of Columbia.</i> |   |                  |       |       |
| Washington .....             | Gallaudet College .....                 | 6                | 5     | 5     |
| Do .....                     | Howard University .....                 |                  |       | 188   |
| <i>Florida.</i>              |   |                  |       |       |
| Leesburg .....               | Florida Conference College .....        |                  | 3     |       |
| St. Leo .....                | St. Leo Military College .....          |                  | 2     | 3     |
| De Land .....                | John B. Stetson University .....        | 6                |       |       |
| <i>Georgia.</i>              |   |                  |       |       |
| Atlanta .....                | Atlanta University .....                | 88               | 99    | 83    |
| South Atlanta .....          | Clark University .....                  | 45               |       |       |
| Atlanta .....                | Morris Brown College .....              |                  | 25    | 29    |

*Colleges and universities reporting students in teachers' training courses—Continued.*

| Location.                 | Institution.                                 | Normal students. |       |       |
|---------------------------|--|------------------|-------|-------|
|                           |  | 1893.            | 1894. | 1895. |
| <i>Georgia—Continued.</i> |  |                  |       |       |
| Birmingham .....          | Methodist Episcopal College .....            | —                | 16    | 9     |
| Gainesville .....         | Georgia Female Seminary .....                | 40               | 20    | —     |
| Lagrange .....            | Lagrange Female College .....                | 32               | 21    | 14    |
| Macon .....               | Mercer University .....                      | —                | —     | 27    |
| Milledgeville .....       | Georgia Normal and Industrial College .....  | 122              | 158   | 152   |
| Wrightsville .....        | Nannie Lou Warthen College .....             | —                | —     | 18    |
| Buford .....              | Southern Female College .....                | 12               | —     | —     |
|                           | Buford College .....                         | 2                | —     | —     |
| <i>Illinois.</i>          |  |                  |       |       |
| Abingdon .....            | Hedding College .....                        | 25               | 17    | 22    |
| Carlinville .....         | Blackburn University .....                   | 16               | —     | 7     |
| Carthage .....            | Carthage College .....                       | —                | 10    | 64    |
| Champaign .....           | University of Illinois .....                 | —                | —     | 12    |
| Chicago .....             | University of Chicago* .....                 | —                | —     | —     |
| Efingham .....            | Austin College .....                         | —                | 52    | 110   |
| Evanston .....            | Northwestern University* .....               | —                | 11    | —     |
| Fulton .....              | Northern Illinois College .....              | 35               | 40    | 30    |
| Hoopeston .....           | Greer College .....                          | —                | —     | 4     |
| Naperville .....          | Northwestern College .....                   | 12               | 16    | 13    |
| Quincy .....              | Chaddock College .....                       | —                | 10    | —     |
| Rock Island .....         | Augustana College .....                      | 12               | 8     | 17    |
| Upper Alton .....         | Shurtleff College .....                      | —                | 3     | 5     |
| Westfield .....           | Westfield College .....                      | —                | 9     | —     |
| Jacksonville .....        | Illinois Female College .....                | —                | 7     | 7     |
| Knoxville .....           | St. Mary's School .....                      | 90               | 40    | —     |
| Lake Forest .....         | Lake Forest University .....                 | 15               | —     | —     |
| Elmhurst .....            | Proseminar der Evangel Synode von N. A. .... | 40               | —     | —     |
| <i>Indian Territory.</i>  |  |                  |       |       |
| Bacone .....              | Indian University .....                      | —                | 9     | 19    |
| <i>Indiana.</i>           |  |                  |       |       |
| Bloomington .....         | Indiana University* .....                    | —                | —     | —     |
| Hanover .....             | Hanover College .....                        | —                | 5     | —     |
| Merom .....               | Union Christian College .....                | 26               | 18    | 47    |
| Moores Hill .....         | Moores Hill College .....                    | 67               | 104   | 98    |
| Ridgeville .....          | Ridgeville College .....                     | 10               | 15    | —     |
| Upland .....              | Taylor University .....                      | 12               | 25    | 50    |
| <i>Iowa.</i>              |  |                  |       |       |
| Charles City .....        | Charles City College .....                   | 22               | 19    | 33    |
| College Springs .....     | Amity College .....                          | 30               | —     | 49    |
| Des Moines .....          | Drake University .....                       | 358              | —     | 88    |
| Hopkinton .....           | Lenox College .....                          | 3                | 3     | —     |
| Indianola .....           | Simpson College .....                        | 24               | 56    | 66    |
| Iowa City .....           | State University of Iowa* .....              | —                | —     | —     |
| Mount Pleasant .....      | German College .....                         | —                | 15    | 6     |
| Do .....                  | Iowa Wesleyan University .....               | 4                | —     | 5     |
| Mount Vernon .....        | Cornell College .....                        | —                | —     | 64    |
| Sioux City .....          | University of the Northwest .....            | 45               | 45    | 20    |
| Storm Lake .....          | Buena Vista College .....                    | —                | 87    | 33    |
| Toledo .....              | Western College .....                        | 68               | 35    | 21    |
| Fayette .....             | Upper Iowa University .....                  | 1                | —     | —     |
| Waverly .....             | Wartburg College .....                       | 10               | —     | —     |
| <i>Kansas.</i>            |  |                  |       |       |
| Baldwin .....             | Baker University .....                       | 32               | 39    | 62    |
| Dodge City .....          | Soule College .....                          | —                | —     | 49    |
| Enterprise .....          | Central College .....                        | 29               | 20    | 20    |
| Holton .....              | Campbell University .....                    | —                | 65    | 8     |
| Lawrence .....            | University of Kansas* .....                  | —                | —     | —     |
| Lecompton .....           | Lane University .....                        | 7                | 2     | 23    |
| Lindsborg .....           | Bethany College .....                        | —                | 48    | 27    |
| Ottawa .....              | Ottawa University .....                      | —                | 4     | 13    |
| Salina .....              | Kansas Wesleyan University .....             | 50               | 66    | 50    |
| Sterling .....            | Cooper Memorial College .....                | —                | —     | 12    |
| Wichita .....             | Wichita University .....                     | 10               | 10    | —     |
| Winfield .....            | Southwest Kansas College .....               | —                | —     | 18    |
| Oswego .....              | Oswego College for Women .....               | 1                | —     | —     |
| <i>Kentucky.</i>          |  |                  |       |       |
| Berea .....               | Berea College .....                          | 4                | 6     | 4     |
| Bowling Green .....       | Potter College .....                         | 227              | —     | —     |

*Colleges and universities reporting students in teachers' training courses—Continued.*

| Location.                  | Institution.                                      | Normal students. |       |       |
|----------------------------|---|------------------|-------|-------|
|                            |   | 1893.            | 1894. | 1895. |
| <i>Kentucky—Continued.</i> |   |                  |       |       |
| Columbia .....             | Columbia Christian College.....                   | .....            | 15    | 35    |
| Danville .....             | Caldwell College.....                             | 6                | ..... | ..... |
| Glasgow .....              | Liberty College.....                              | .....            | ..... | 27    |
| Harrodsburg.....           | Daughters College.....                            | 8                | ..... | ..... |
| Hopkinsville .....         | South Kentucky College.....                       | 10               | 25    | 20    |
| Lancaster .....            | Garrard College.....                              | 10               | 10    | 10    |
| Millersburg .....          | Millersburg Female College.....                   | .....            | ..... | 9     |
| Harrodsburg .....          | Young Ladies' College.....                        | .....            | 106   | ..... |
| Owensboro .....            | Owensboro Female College.....                     | .....            | ..... | 3     |
| Richmond .....             | Central University.....                           | 45               | ..... | 88    |
| Winchester.....            | Winchester Female College.....                    | 4                | 5     | 6     |
| Williamsburg .....         | Williamsburg Female College.....                  | 22               | ..... | ..... |
| <i>Louisiana.</i>          |   |                  |       |       |
| New Orleans.....           | New Orleans University.....                       | 38               | 39    | 31    |
| Do.....                    | Straight University.....                          | 47               | 12    | 20    |
| Mansfield.....             | Mansfield Female College.....                     | .....            | 8     | ..... |
| Convent .....              | College of the Immaculate Conception.....         | 124              | ..... | ..... |
| <i>Maine.</i>              |   |                  |       |       |
| Kents Hill.....            | Maine Wesleyan Female College.....                | 8                | 6     | 8     |
| <i>Maryland.</i>           |   |                  |       |       |
| Baltimore.....             | Morgan College.....                               | 6                | 82    | ..... |
| Mount St. Marys.....       | Mount St. Marys College.....                      | 146              | ..... | ..... |
| <i>Massachusetts.</i>      |   |                  |       |       |
| Cambridge .....            | Harvard University*.....                          | .....            | ..... | ..... |
| Worcester .....            | Clark University*.....                            | 3                | 5     | ..... |
| Wellesley .....            | Wellesley College.....                            | 21               | 17    | 21    |
| <i>Michigan.</i>           |   |                  |       |       |
| Adrian .....               | Adrian College.....                               | 1                | ..... | 19    |
| Albion .....               | Albion College.....                               | .....            | ..... | 10    |
| Alma .....                 | Alma College.....                                 | 7                | 5     | ..... |
| Ann Arbor .....            | University of Michigan.....                       | .....            | ..... | ..... |
| Benzonia .....             | Benzonia College.....                             | 10               | 18    | 19    |
| Hillsdale .....            | Hillsdale College.....                            | .....            | 70    | 37    |
| Olivet .....               | Olivet College.....                               | 9                | 27    | 20    |
| Grand Rapids .....         | Western Michigan College.....                     | 73               | ..... | ..... |
| <i>Minnesota.</i>          |   |                  |       |       |
| Excelsior .....            | Northwestern Christian College.....               | .....            | 13    | 15    |
| Minneapolis .....          | University of Minnesota*.....                     | 22               | 29    | 46    |
| St. Peter.....             | Gustavus Adolphus College.....                    | .....            | 60    | ..... |
| Winnebago City.....        | Parker College.....                               | 6                | 18    | 17    |
| New Ulm .....              | Dr. Martin Luther College.....                    | 9                | ..... | ..... |
| <i>Mississippi.</i>        |   |                  |       |       |
| Daleville .....            | Cooper-Huddleston College.....                    | 13               | 5     | 31    |
| Holly Springs .....        | Rust University.....                              | .....            | 72    | 77    |
| University .....           | University of Mississippi*.....                   | .....            | 18    | 27    |
| Columbus .....             | Mississippi Industrial Institute and College..... | 80               | 67    | 90    |
| Oxford .....               | Union Female College.....                         | .....            | ..... | 10    |
| Pontotoc .....             | Chickasaw Female College.....                     | .....            | 8     | ..... |
| Tongaloo .....             | Tongaloo University.....                          | 33               | ..... | ..... |
| Meridian .....             | East Mississippi Female College.....              | 8                | ..... | ..... |
| Woodville .....            | Edward McGhee College.....                        | 2                | ..... | ..... |
| <i>Missouri.</i>           |   |                  |       |       |
| Albany .....               | Central Christian College.....                    | .....            | 70    | ..... |
| Do.....                    | Northwest Missouri College.....                   | 20               | 18    | 15    |
| Bowling Green .....        | Pike College.....                                 | 16               | 16    | ..... |
| Cameron .....              | Missouri Wesleyan College.....                    | 26               | 43    | ..... |
| Canton .....               | Christian University.....                         | .....            | ..... | 41    |
| Carthage .....             | Carthage Collegiate Institute.....                | .....            | 4     | ..... |
| Columbia .....             | University of the State of Missouri*.....         | 84               | 112   | 70    |
| Edinburg .....             | Grand River Christian Union College.....          | 12               | ..... | 70    |
| Lawson .....               | Presbyterian College of Upper Missouri.....       | .....            | 10    | ..... |
| Tarkio.....                | Tarkio College.....                               | 27               | ..... | 8     |
| Trenton .....              | Avalon College.....                               | 45               | 34    | 31    |



*Colleges and universities reporting students in teachers' training courses—Continued.*

| Location.                 | Institution.                             | Normal students. |       |       |
|---------------------------|--|------------------|-------|-------|
|                           |  | 1893.            | 1894. | 1895. |
| <i>Missouri—Continued</i> |  |                  |       |       |
| Warrenton .....           | Central Wesleyan College.....            | 8                | 9     | 5     |
| Fulton.....               | Synodical Female College.....            |                  | 14    | 0     |
| St. Charles.....          | St. Charles College.....                 | 10               |       |       |
| <i>Nebraska.</i>          |  |                  |       |       |
| Bellevue.....             | University of Omaha.....                 | 12               | 12    | 10    |
| Bethany.....              | Cotner University.....                   |                  | 25    | 43    |
| Crete.....                | Doane College.....                       | 11               | 15    | 13    |
| Fairfield.....            | Fairfield College.....                   | 34               | 37    | 23    |
| Neligh.....               | Gates College.....                       |                  | 76    | 51    |
| University Place.....     | Nebraska Wesleyan University.....        |                  | 15    | 50    |
| York.....                 | York College.....                        | 15               | 6     |       |
| <i>Nevada.</i>            |  |                  |       |       |
| Reno.....                 | State University of Nevada.....          | 40               | 40    | 67    |
| <i>New Mexico.</i>        |  |                  |       |       |
| Albuquerque.....          | University of New Mexico.....            | 63               | 30    | 4     |
| <i>New York.</i>          |  |                  |       |       |
| Ithaca.....               | Cornell University*.....                 |                  |       |       |
| New York.....             | Columbia College*.....                   |                  |       |       |
| Do.....                   | University of the City of New York*..... | 134              | 88    | 81    |
| Elmira.....               | Elmira College.....                      |                  | 12    |       |
| Alfred Center.....        | Alfred University.....                   | 15               |       |       |
| Syracuse.....             | Syracuse University.....                 | 50               |       |       |
| <i>North Carolina.</i>    |  |                  |       |       |
| Chapel Hill.....          | University of North Carolina*.....       |                  |       | 59    |
| Charlotte.....            | Biddle University.....                   |                  | 40    | 30    |
| Guilford College.....     | Guilford College.....                    |                  | 28    |       |
| Raleigh.....              | Shaw University.....                     |                  | 189   | 175   |
| Rutherford College.....   | Rutherford College.....                  | 25               | 10    |       |
| Salisbury.....            | Livingstone College.....                 |                  | 52    | 53    |
| Lenoir.....               | Davenport Female College.....            | 15               | 7     |       |
| Louisburg.....            | Louisburg Female College.....            | 13               |       | 25    |
| <i>North Dakota.</i>      |  |                  |       |       |
| Fargo.....                | Fargo College.....                       |                  | 12    | 12    |
| University.....           | University of North Dakota.....          | 28               |       | 8     |
| <i>Ohio.</i>              |  |                  |       |       |
| Akron.....                | Buchtel College.....                     | 21               | 24    | 19    |
| Alliance.....             | Mount Union College.....                 |                  | 135   | 80    |
| Ashland.....              | Ashland University.....                  |                  |       | 35    |
| Athens.....               | Ohio University*.....                    | 74               | 105   | 73    |
| Berea.....                | Baldwin University.....                  |                  |       | 11    |
| Defiance.....             | Defiance College.....                    | 50               | 34    | 59    |
| Delaware.....             | Ohio Wesleyan University.....            |                  | 31    |       |
| Findlay.....              | Findlay College.....                     |                  | 36    | 62    |
| Hillsboro.....            | Hillsboro College.....                   | 37               | 50    |       |
| Hiram.....                | Hiram College.....                       | 75               | 75    |       |
| Hopedale.....             | Hopedale Normal College.....             |                  | 75    |       |
| Lima.....                 | Lima College.....                        |                  | 55    | 74    |
| New Concord.....          | Muskingum College.....                   | 10               | 16    | 10    |
| Richmond.....             | Richmond College.....                    |                  | 20    |       |
| Tiffin.....               | Heidelberg University.....               | 3                | 7     | 10    |
| Westerville.....          | Otterbein University.....                |                  |       | 25    |
| West Farmington.....      | Farmington College.....                  |                  | 21    |       |
| Wilberforce.....          | Wilberforce University.....              | 43               | 60    | 107   |
| Yellow Springs.....       | Antioch College.....                     |                  |       | 76    |
| Marietta.....             | Marietta College.....                    | 12               |       |       |
| Glendale.....             | Glendale Female College.....             | 8                |       |       |
| <i>Oregon.</i>            |  |                  |       |       |
| Philomath.....            | Philomath College.....                   | 10               |       | 16    |
| Salem.....                | Willamette University.....               | 22               | 26    | 31    |
| University Park.....      | Portland University.....                 |                  | 27    |       |
| Forest Grove.....         | Pacific College.....                     | 6                |       |       |
| <i>Pennsylvania.</i>      |  |                  |       |       |
| Annaville.....            | Lebanon Valley College.....              | 9                | 14    | 6     |
| Collegeville.....         | Ursinus College.....                     |                  |       | 27    |

*Colleges and universities reporting students in teachers' training courses—Continued.*

| Location.                | Institution.                         | Normal students. |       |       |
|--------------------------|--------------------------------------|------------------|-------|-------|
|                          |                                      | 1893.            | 1894. | 1895. |
| Pennsylvania—Continued.  |                                      |                  |       |       |
| Greenville .....         | Thiel College .....                  |                  |       | 7     |
| Jefferson .....          | Monongahela College .....            | 50               | 67    | 53    |
| New Berlin .....         | Central Pennsylvania College .....   | 9                | 7     | 7     |
| Philadelphia .....       | Central High School .....            | 9                | 16    | 11    |
| Do .....                 | University of Pennsylvania * .....   |                  |       |       |
| Pittsburg .....          | Duquesne College .....               | 44               | 30    | 30    |
| Chambersburg .....       | Wilson College .....                 |                  | 4     |       |
| Allentown .....          | Muhlenberg College .....             | 24               |       |       |
| Beatty .....             | St. Vincent College .....            | 144              |       |       |
| Volant .....             | Volant College .....                 | 30               |       |       |
| Rhode Island.            |                                      |                  |       |       |
| Providence .....         | Brown University * .....             |                  |       |       |
| South Carolina.          |                                      |                  |       |       |
| Columbia .....           | Allen University .....               | 49               | 28    | 86    |
| Do .....                 | South Carolina College * .....       |                  |       | 14    |
| Orangeburg .....         | Clafin University .....              | 45               | 68    | 48    |
| Due West .....           | Due West Female College .....        |                  |       | 25    |
| Union .....              | Chfford Seminary .....               |                  |       | 6     |
| Williamston .....        | Williamston Female College .....     | 6                |       |       |
| South Dakota.            |                                      |                  |       |       |
| East Pierre .....        | Pierre University .....              | 5                | 25    | 29    |
| Hot Springs .....        | Black Hills College .....            | 17               | 8     | 6     |
| Mitchell .....           | Dakota University .....              | 70               | 56    | 57    |
| Redfield .....           | Redfield College .....               | 56               | 51    | 33    |
| Tennessee.               |                                      |                  |       |       |
| Harriman .....           | American Temperance University ..... |                  | 20    | 45    |
| Hiwassee College .....   | Hiwassee College .....               |                  |       | 20    |
| Huntingdon .....         | Southern Normal University .....     | 50               | 60    |       |
| Knoxville .....          | Knoxville College .....              | 18               | 80    | 25    |
| Do .....                 | University of Tennessee * .....      | 29               | 47    | 48    |
| Milligan .....           | Milligan College .....               | 20               | 40    | 29    |
| Mossy Creek .....        | Carson and Newman College .....      | 30               | 26    | 27    |
| Nashville .....          | Central Tennessee College .....      |                  | 35    | 16    |
| Do .....                 | Fisk University .....                | 101              | 87    | 82    |
| Do .....                 | Roger Williams University .....      | 55               |       | 39    |
| Do .....                 | University of Nashville .....        |                  |       | 132   |
| Sewanee .....            | University of the South .....        | 6                | 8     |       |
| Spencer .....            | Burritt College .....                | 47               | 42    | 16    |
| Sweetwater .....         | Sweetwater College .....             | 5                |       | 16    |
| Washington College ..... | Washington College .....             |                  |       | 11    |
| Columbia .....           | Columbia Athenæum .....              |                  | 10    | 8     |
| Rogersville .....        | Rogersville Synodical College .....  | 8                | 8     | 12    |
| Somerville .....         | Somerville Female Institute .....    |                  | 10    | 10    |
| Chattanooga .....        | U. S. Grant University .....         | 62               |       |       |
| McKenzie .....           | Bethel College .....                 | 20               |       |       |
| Brownsville .....        | Brownsville Female College .....     | 24               |       |       |
| Pulaski .....            | Martin College .....                 | 8                |       |       |
| Texas.                   |                                      |                  |       |       |
| Austin .....             | University of Texas * .....          |                  |       | 125   |
| Brenham .....            | Evangelical Lutheran College .....   | 23               | 22    | 5     |
| Brownwood .....          | Howard Payne College .....           | 20               | 15    | 15    |
| Campbell .....           | Henry College .....                  |                  | 13    | 15    |
| Fort Worth .....         | Fort Worth University .....          | 14               | 8     | 37    |
| Marshall .....           | Wiley University .....               |                  | 24    | 34    |
| Tehuacana .....          | Trinity University .....             |                  | 4     |       |
| Waco .....               | Paul Quinn College .....             | 5                | 6     | 6     |
| Sherman .....            | Austin College .....                 | 5                |       |       |
| Bonham .....             | Carlton College .....                | 7                |       |       |
| Utah.                    |                                      |                  |       |       |
| Logan .....              | Brigham Young College .....          |                  |       | 107   |
| Salt Lake City .....     | University of Utah .....             | 203              |       | 70    |
| Virginia.                |                                      |                  |       |       |
| Bridgewater .....        | Bridgewater College .....            |                  | 5     | 10    |
| Newmarket .....          | Polytechnic Institute .....          | 4                | 8     | 8     |
| Williamsburg .....       | William and Mary College .....       |                  |       | 114   |

*Colleges and universities reporting students in teachers' training courses—Continued.*

| Location.                  | Institution.                          | Normal students. |       |      |
|----------------------------|---------------------------------------|------------------|-------|------|
|                            |                                       | 1893.            | 1894. | 1895 |
| <i>Virginia—Continued.</i> |                                       |                  |       |      |
| Lynchburg .....            | Randolph-Macon Woman's College* ..... |                  | 7     | 6    |
| Staunton .....             | Wesleyan Female Institute .....       |                  | 3     | 0    |
| Winchester .....           | Valley Female College .....           |                  | 2     | 2    |
| <i>Washington.</i>         |                                       |                  |       |      |
| Burton .....               | Vashon College .....                  |                  | 28    | 20   |
| Dunlap .....               | University of Seattle .....           |                  |       | 6    |
| Seattle .....              | University of Washington * .....      | 14               | 59    | 107  |
| Tacoma .....               | Puget Sound University .....          |                  | 6     | 39   |
| Vancouver .....            | St. James College .....               |                  |       | 14   |
| Walla Walla .....          | Whitman College .....                 | 14               |       | 12   |
| Colfax .....               | Colfax College .....                  | 5                |       |      |
| <i>West Virginia.</i>      |                                       |                  |       |      |
| Barboursville .....        | Barboursville College .....           | 60               | 57    | 21   |
| Morgantown .....           | West Virginia University* .....       |                  | 21    | 20   |
| <i>Wisconsin.</i>          |                                       |                  |       |      |
| Galesville .....           | Gale College .....                    |                  |       | 14   |
| Madison .....              | University of Wisconsin * .....       |                  |       |      |
| Ripon .....                | Ripon College .....                   |                  | 151   |      |
| Watertown .....            | Northwestern University .....         | 13               |       |      |
| Fox Lake .....             | Downer College .....                  | 4                |       |      |
| <i>Wyoming.</i>            |                                       |                  |       |      |
| Laramie .....              | University of Wyoming .....           |                  | 21    | 20   |

## DEPARTMENTS OF PEDAGOGY.

The twenty-seven institutions in the preceding list marked with an asterisk (\*) offer professional training to teachers in regularly organized departments of pedagogy. The courses of study usually extend over the four years and lead to degrees equivalent to other college first degrees. In a few instances post-graduate courses are offered. At the head of the department is generally a professor of pedagogy. The subject is usually treated in five or more courses or subdivisions, such as practical pedagogy, school organization and supervision, history of education, theory of education, and educational systems. Seminary work is provided for in nearly all the institutions named. In the following table is given a synopsis of the courses offered in the departments of pedagogy in each of the twenty-seven institutions mentioned. The courses are not in all cases arranged as here indicated, but the synopsis includes all the subjects offered in the departments of pedagogy in these colleges and universities.





*Synopsis of courses in departments of*

| Institution.   | Practical pedagogy.  | School organization and supervision.   | History of education.  |
|--|--|--|--|
| University of California, Berkeley, Cal.                     | Practice of teaching: 3 hours a week are devoted to lectures and text-book; 3 hours to the observation of teaching in schools, second term.  | School supervision: Text-book, supplemented by lectures on the organization, grading, and management of schools, school statistics, and the organization and conduct of high schools, 2 hours per week, first term; visitation of schools, with special reference to observing methods of organization, grading, and management, 3 hours per week, first term. | History of education: Earlier periods to the time of Rousseau; text-book and readings, supplemented by lectures, 3 hours, first term; the latest period, from the time of Rousseau to the present, text-book and readings, 3 hours, second term.   |
| Leland Stanford Junior University, Stanford University, Cal. | Methods of teaching subjects in elementary schools, 2 hours, first semester: This course deals with common school subjects, their efficacy, their relative importance, and their coordination.<br>Methods of teaching subjects in secondary schools, 2 hours, second semester; consists of lectures and lessons on the place of various subjects in a course of liberal study, and dealing with text-books, classroom management, and general questions of method. | School organization and supervision, 2 hours, second semester: A comparative study of the organization and management of schools, with a view to determining the influences—political, social, and pedagogical—that affect the formation, growth, and vitality of schools.   | History of civilization in Europe: Deals with the historical development of man's political, religious, industrial, social, and moral ideals, and his attempts to realize them through education, 2 hours, both semesters.<br>Intellectual development of America: Deals with the successive steps in our intellectual development as shown in our schools, literature, journals, and social and theological movements, 2 hours, both semesters, Rousseau and Pestalozzi, 2 hours.<br>History of pedagogy (Compayre and lectures); history of pedagogy, advanced (Davidson, Laurie, Quick, etc.), first semester.  |
| University of Colorado, Boulder, Colo.                       |  |  |  |
| University of Chicago, Chicago, Ill.                         |  |  | History of education: Pre-Christian education in the Orient; influence of Christianity on educational ideas and practices; Aristotle and Greek education; Quintilian and Roman education; early Christian education; mediaeval schools; the rise of universities; Luther and the Reformers as educators; Comenius, Rousseau, Pestalozzi, Fröbel, Herbart; educational democracy, including the rise and development of the school systems of Germany, England, France, and the United States; the shifting emphasis in educational thought and practice will be carefully examined; study of some important unsettled problems of education, first term, summer quarter. |

*pedagogy in certain universities and colleges.*

| Theory of education.  | Educational systems.   | Seminary, etc.   |
|---|--|--|
| <p>Theory of education: Lectures on recent views of the general theory of education. Criticism of these views and discussion of their bearing upon the practical work of schools, 4 hours, first term.</p> <p>Philosophy of education.</p>  | <p>School systems: Studies on their origin and development, and a comparative view of education in the leading States of Europe and America, 2 hours, second term.</p>             | <p>Seminary for the study of special problems in education, 2 hours, both terms. Graduate seminary for the systematic study of child life. Biological aspects of education, primarily for graduate students.</p>   |
| <p>Study of educational classics, 2 hours, both semesters: A critical and historical study of the works on education by Aescham, Bacon, Milton, Locke, Spencer, and others.</p>   | <p>Comparative study of European school systems, 1 hour, second semester: Lectures and comparative studies on the school systems of England, France, Germany, and Switzerland.</p> | <p>Seminary devoted to particular studies in education, 2 hours, both semesters.</p> <p>Psychology of childhood, 2 hours, both semesters: Deals with the physical, intellectual, and moral development of children; consists of original studies on children, of statistical studies on the development of the senses, emotions, etc., and of studies in the literature of the subject.</p>  |
| <p>Educational psychology (McLellan, Sully, etc.), first semester.</p> <p>General theory of education (Compayre), second semester.</p> <p>Educational masterpieces (Locke's <i>Thoughts on Education</i>, Lange's <i>Apperception</i>, Spencer's <i>Education</i>), second semester.</p> <p>Philosophy of Education (Rosenkranz, Bain, Herbart, etc.), second semester.</p> |  |  |
| <p>Laurie's Institutes of Education. Special topics to be considered are: Education: values; coordination of studies; child study; apperception; interest; ethical and religious element in education; suggested lines of experiment open to teachers to advance educational knowledge and practice, first term, summer quarter.</p>  |  |  |
| <p>General pedagogy: Development of certain phases of German psychological thought and the resulting principles of pedagogy, autumn quarter.</p>  |  |  |
| <p>The psychological and pedagogical principles of Pestalozzi and Herbart, winter quarter.</p>  |  |  |
| <p>Development of English pedagogy, spring quarter.</p>   |  |  |
| <p>General principles of pedagogy, with special reference to American education, summer quarter.</p>  |  | <p>The work of the seminar will be conducted in two sections, each meeting 2 hours per week. In one section the work will be of a theoretical character, embracing in the autumn quarter an introduction to modern German pedagogy, with readings from Pestalozzi's selected works; in the winter quarter, Herbert Spencer's <i>Education</i>, with the portions of the psychology and data of ethics on which it is based, and in the spring quarter, Herbart's metaphysics and psychology as a basis for his pedagogical writings. The work of the other section will take the form of conferences upon practical questions, conducted with the aid of reports, theses, and discussions.</p> |

*Synopsis of courses in departments of pedagogy*

| Institution                                  | Practical pedagogy.   | School organization and supervision.   | History of education.  |
|--|---|--|--|
| Northwestern University, Evanston, Ill.      |   |  | Compayre's History of Education, Quick's Essays on Educational Reformers, Gill's Systems of Education, Boone's Education in the United States, 2 hours.  |
| Indiana University, Bloomington, Ind.        |   |  | First year: Education in Greece, Rome, Alexandria, and the East, especially Palestine; the rise of Christian schools; the reforms of Charlemagne; the confluence of Greek, Roman, Hebrew, Arabic, and Teutonic culture; the rise of universities; the Reformers, daily.<br>Second year: History of education in America. |
| State University of Iowa, Iowa City, Iowa.   | Teaching and governing: Methods of instruction and general schoolroom practice, including sanitation. (5 hours a week, winter).<br>Secondary education: Organization of courses of study and methods of instruction in secondary schools; report of the committee of ten. (3 hours a week, spring.) | School supervision: A study of school management, the art of grading schools, and the art of arranging courses of study, 5 hours a week, spring. Text books: Chapters on School Supervision, Payne; School Supervision, Pickard. | Compayre's History of Pedagogy, Quick's Educational Reformers, 2 hours a week, fall and winter.  |
| University of Kansas, Lawrence, Kans.        | Methods of instruction, half second term, daily.  | School law, first half term, daily; school management, half second term, daily, school supervision, half first term, daily.  | History of education, daily, second term.  |
| Harvard University, Cambridge, Mass.         | Methods of teaching science in elementary and secondary schools: About 10 exercises for each of the following subjects: Physics, chemistry, physical geography, botany, zoology, physiology, mathematics.   | Organization and management of public schools and academies, supervision, courses of study, and instruction, twice a week.   |  |
| Clark University, Worcester, Mass.           | Methods, devices, apparatus, etc., child study, school hygiene.   | Supervision and administration.  | History of education and reforms.  |
| University of Michigan, Ann Arbor, Mich.     | The arts of teaching and governing, methods of instruction and general schoolroom practice, school hygiene, school law, 4 hours, first semester; Compayre's Lectures on Pedagogy.   | General school management, the art of grading and arranging courses of study, the conduct of institutes, etc.; Payne's Chapters on School Supervision, 3 hours, first semester.  | Compayre's History of Education, 3 hours, during the entire year.  |
| University of Minnesota, Minneapolis, Minn.  | Methodology: General arrangements of subject-matter in courses of study; proper orders in the presentation of the several subjects; conduct of recitations. Visitation of schools.  | School government and organization; school hygiene.  | Ancient education; mediæval and modern theories.   |
| University of Mississippi, University, Miss. | Baldwin's Art of School Management: Management of schools, methods of discipline, class tactics, school apparatus, and other appliances.  | Pickard's School Supervision: Organization and management of graded schools; duties of superintendent and  | Compayre's History of Pedagogy, 5 hours per week, first term.  |

*in certain universities and colleges—Continued.*

| Theory of education.  | Educational systems.  | Seminary, etc.   |
|---|---|--|
| Principles of education: Rooper's Apperception, De Garmo's Essentials of Method, Laurie's Institutes of Education, Compayre's Lectures on Pedagogy, Lange's Apperception, Herbert's Science of Education, 2 hours.  |   | Seminary: Essays and discussions on topics suggested by previous studies in history and principles of education.   |
| Second year: History of Methods and the Science of Education; History of Recent Pedagogical Questions—The Humanities; Technical Education; The Training of Teachers; Child Study; The Coordination of Studies; The Teaching of Science; Research, etc.—daily. | Second year: Foreign and American school systems.   | Seminary work and research: Study of the anatomy and physiology of the central nervous system—memory, growth, etc.—or what may be called physiological pedagogics; school hygiene and comparative psychology, especially child study, daily. |
|   | An examination of the State and city systems of the United States, 3 hours a week, winter.  | The seminary will afford an opportunity for the investigation of selected subjects 2 hours a week during the year.   |
| Philosophy of education, half first term, daily.  | Comparative study of educational systems, half first term, daily.   |  |
| History of educational theories and practices, twice a week. Introduction to educational theory, discussion of educational principles, once a week.   |   | Seminary: Aims, organization, equipment, and methods of education, more particularly of secondary education, once a week.  |
| Educational psychology, principles of education.  | Organization of schools in different countries; typical schools and special foundations; motoreducation, including manual training, physical education, etc.; ideals; higher education. | The work of the seminary, once a week throughout the year, will be, for the most part, adapted to individual students.   |
| Theoretical and critical pedagogy: The principles underlying the art of teaching and governing, 4 hours, second semester.   | Comparative study of educational systems, domestic and foreign, 2 hours, second semester.   | Seminary: Study and discussion of special topics in the history and philosophy of education, 2 hours, second semester.   |
| Great exponents of educational thought and practice: A historical and expository course, 1 hour, second semester.   |   |  |
| See History of education; Philosophy of education: Purpose and end in education in relation to the individual and to society; mental development, physiologically considered; order of mental development in its relation to subject-matter of study.         | National, State, and local school systems.  | Seminars will be offered weekly during the year for a more careful study of special educational problems, philosophies, and classics, as the interests of students suggest.  |
| Palmer's Science of Education, 3 hours per week, second term; psychology of childhood; applied psychology (Baldwin).  | County, city, State, and national school systems.   | Seminary, 1 hour per week.   |



*Synopsis of courses in departments of pedagogy*

| Institution.   | Practical pedagogy.   | School organization and supervision.   | History of education.   |
|--|---|--|---|
| University of Mississippi, University. Miss.—Cont'd.                   | 3 hours per week, first term. Brooks's Normal Methods of Teaching, 3 hours per week, second term.   | assistants, classification of pupils, promotions, arrangement of the course of study, 2 hours per week.  |   |
| University of the State of Missouri, Columbia, Mo.                     | -----   | -----  | Compayre's History of Pedagogy; Quick's Educational Reformers.  |
| Cornell University, Ithaca, N. Y.<br>Columbia College, New York, N. Y. | -----<br>At Teachers' College: Study of children, 2 hours.<br>Methods of teaching in the elementary school, 1½ hours; methods of teaching English in secondary schools, 2 hours, second term; methods of teaching history in secondary schools, 2 hours, first term; methods of teaching science in elementary and secondary schools, 3 hours; methods of teaching manual training in elementary and secondary schools, 4 hours; methods of teaching Latin and Greek, 1 hour; methods of teaching French and German, 1 hour; methods of teaching educational psychology, 2 hours; practice in teaching.<br>Child study. Physiological pedagogics. | School supervision, 1 hour per week, third term.<br>Teachers' College: Practice in school supervision.   | History of education, 2 hours per week.<br>History of educational theories and institutions: Aristotle and the ancient educational ideals, Alcuin and the rise of the Christian schools, Abelard and the foundation of the universities, Loyola and the educational system of the Jesuits; the educational reformers, Rousseau, Pestalozzi, and Fröbel; Herbart and the philosophical study of education, 1 hour.<br>Teachers' College: Critical reading of educational classics, 1 hour.   |
| New York University, New York, N. Y.                                   |   | (1) School buildings, grounds, lighting, heating, ventilation, furniture, sanitation, apparatus, and equipment discussed with reference to the best standards and the reasons which determine these; their practical application. (2) Study of the course of instruction, methods of teaching, working directions, grading, management, and administration of a system of schools, 2 hours per week. | History of education: The aim of this course is to trace the development of educational principles and systems, alike in the relation of these to the general intellectual life of successive periods and nations and in their effect on pedagogical practice. Attention is concentrated first on the ideals cherished during the great civilizations of the past, on their expression through leading philosophers and educators, and their gradual realization in school organization and methods. A concise summary of oriental life leads to a consideration of Greek and Roman civilization. The intellectual development of the middle ages is outlined through a sketch of the early Christian schools, of the efforts of Alfred and Charlemagne, of the influence of chivalry and scholasticism, and of the mediæval university. A study of the Renaissance and the Reformation reveals new elements in educational |

*in certain universities and colleges—Continued.*

| Theory of education.   | Educational systems.  | Seminary, etc.  |
|--|---|---|
| <p>Compayre's Lectures on Pedagogy; Rosini's Method in Education; Rosenkranz's Philosophy of Education; Philosophy of the Kindergarten (Fröbel); Herbert Spencer's Educational Theories.</p> <p>Institutes of education, 3 hours per week.</p> <p>Principles of education; psychology of childhood, didactics, the ethical and religious element in education, 1 hour.</p> <p>Teachers' College: Laurie's Institutes of Education, Rosenkranz's Philosophy of Education, Herbart's Science of Education, 1 hour.</p> | <p>School systems of Europe (Gill, Klemm).</p> <p>Comparative study of the school systems of the cities and States of the United States (Boone, and circulars of United States Bureau of Education).</p>  | <p>.....</p> <p>Pedagogical conference, 2 hours per week.</p> <p>Educational seminar, 1 hour.</p> |
| <p>Institutes of pedagogy: Principles and maxims of education, educative values, motor education, coordination and concentration of studies, Essentials of Method (De Garmo), Logic of Sense Perception (Harris).</p>  | <p>Comparative systems of education: Historic development of the national systems of Germany, France, and England; relation of church and state to the problem of general education; principle of free and compulsory education; administration and supervision of schools; training of teachers; character and scope of elementary education; technical, commercial, and industrial education; female education; ancient and modern languages and sciences in secondary education; higher education.</p> | <p>Original investigations.</p>   |

*Synopsis of courses in departments of pedagogy*

| Institution.                                     | Practical pedagogy.   | School organization and supervision.   | History of education.   |
|--|---|--|---|
| New York University, New York, N. Y.—Cont'd.     |   |  | thought, which are further modified in the philosophy and practice of the seventeenth and eighteenth centuries. The course closes with a critical review of the more prominent educational writers of the present century and a presentation of the broader developments and larger problems of current pedagogical thought, 4 hours a week.                  |
| University of North Carolina, Chapel-hill, N. C. | The art of teaching (lectures with practical exercises in teaching; De Garmo's Essentials; report of the committee of ten), 2 or 3 hours per week, spring term. | .....  | General history of education: The culture conditions and educational doctrines of the past, Williams's History of Modern Education, 2 or 3 hours per week, fall term.   |
| Ohio University, Athens, Ohio.                   | .....   | .....  | Davidson's Aristototele, Quick's Educational Reformers, Aristotle's Politics, Grote's History of Greece, Laurie's Universities, The Great Educators Series, Pestalozzi's Leonard and Gertrude, Rousseau's Emile, Life and Lectures of Horace Mann, Spencer's Education, Gordy's Development of the Normal School Idea in the United States, 4 hours per week. |
| University of Pennsylvania, Philadelphia, Pa.    | .....   | .....  | History of education, 2 hours per week.   |
| South Carolina College, Columbia, S. C.          | Methods of teaching common school subjects, including the elements of drawing, 2 years; practice teaching, 4 years.   | School organization and supervision.   | History of education.....   |
| University of Tennessee, Knoxville, Tenn.        | Art of instructing and governing; application of psychological principles.  | School supervision, grading; courses of study; school economy; school law.   | .....do.....  |
| University of Texas, Austin, Tex.                | Baldwin's Psychology Applied to the Art of Teaching, winter term; Baldwin's Art of Teaching and Practice Teaching, spring term.                                 | School management: Baldwin's Art of School Management, and plans for organizing ungraded, graded, and high schools, fall term; school supervision and high school work, spring term. | History of education: How the Nations Made Great Men, fall term.  |
| Randolph Macon Woman's College, Lynchburg, Va.   | Practical pedagogy: Observation and practice in primary and grammar grades; high-school and college teaching, 3 times per week during the year.                 | White's School Management.   | Painter's History of Education, Compayre's History of Pedagogy, Quick's Educational Reformers, 3 times per week, second term.   |

*in certain universitie sand college.—Continued.*

| Theory of education.  | Educational systems. | Seminary, etc.  |
|---|----------------------|---|
| <p>The science of education (Kirkpatrick's Inductive Psychology, Rein's Pedagogics), 2 or 3 hours per week, fall term. Rosenkranz's Philosophy of Education: Discussion of special educational topics and the social aspects of education in the United States and in North Carolina, 2 or 3 hours per week, spring term.</p> <p>Herbartian pedagogy, 2 hours per week: Herbartian movement in Germany and the United States. Also works of Rein, Ziller, Lange, and others.</p> <p>Fouillee's Education from a National Standpoint and Spencer's What Knowledge Is of Most Worth? 3 hours per week.</p> <p>Bain's Education as a Science, De Garmo's Essentials of Method, Rosenkranz's Philosophy of Education, Fitch's Lectures on Teaching.</p> |                      | <p>The study of childhood in transforming modern methods of studying and teaching educational science, 2 hours per week. This is a course of research.</p>  |
| <p>Institutes of education: Rosenkranz's Philosophy of Education, Laurie's Institutes of Education, Herbart's Science of Education, Rein's Outlines of Pedagogics, 2 hours per week.</p> <p>Theory of education</p>   |                      | <p>Seminary: City school systems, once every 2 weeks.</p>   |
| <p>Science of education, theories and methods of teaching.</p>  | Educational systems  |   |
| <p>Science of education, winter term.</p>   |                      | <p>Pedagogical seminary: School systems compared, fall term; current educational methods and movements, winter term; educational books reviewed and educational theories and methods examined and discussed, spring term.</p> |
| <p>Compayre's Lectures on Pedagogy, Lange's Apperception, Fitch's Lectures on Teaching, Spencer's Lectures on Education, Parker's Talks on Pedagogics, 3 times per week, first term.</p>  |                      |   |



*Synopsis of courses in departments of pedagogy*

| Institution.                                 | Practical pedagogy.  | School organization and supervision.  | History of education.  |
|--|--|---|--|
| University of Washington, Seattle, Wash.     | Art of teaching: School-room duties, study, recitation, school business, recreation, and school government, 3 hours per week, first semester.<br>Lectures on methods of instruction by members of the faculty in their special branches. | School organization and supervision, 2 hours per week, second semester.   | History of education from earliest periods to the present time, 5 hours per week during year; life and work of Pestalozzi, 1 hour per week, first semester.      |
| West Virginia University, Morgantown, W. Va. | .....  | School management (White), grading and classification of schools (Lewis), school supervision (Payne).   | History of Education in West Virginia (Morgan and Cork), Education in the United States (Boone), Educational Reformers (Quick), History of Education (Compayre). |
| University of Wisconsin, Madison, Wis.       | Methods and management in grammar and high school grades, 2 hours per week, second semester.   | School supervision: The making and administration of courses of study, examinations, promotions, inspections, etc., 2 hours per week, first semester. | History of educational theories and institutions, Greek, Roman, and modern; lectures, readings, and essays, 5 hours per week, first semester.                    |

*in certain universities and colleges—Continued.*

| Theory of education.   | Educational systems.   | Seminary, etc.  |
|--|--|---|
| Theory of education, 4 hours per week during year; science of education, 2 hours per week, first semester.                                       | Comparative study of the school systems of the several European countries and of the States of the Union, 3 hours per week, second semester. |   |
| Elements of Pedagogy (White). Theory and Practice (Page and De Garmo), Compayre's Lectures on Pedagogy, educational psychology.                  |  |   |
| Philosophy of education: Lectures, readings, and discussions on the nature, forms, and elements of education, 3 hours per week, second semester. |  | Problems in applied psychology: The training of faculty, child study, mental and bodily defects, etc., 2 hours per week, second semester. |
| The Herbartian pedagogy: Herbart's Science of Education, Rein's Pedagogics, Lange's Apperception, twice a week, second semester.                 |  |   |

TABLE 1.—*Summary of statistics of public normal schools.*

## SCHOOLS AND INSTRUCTORS.

| State or Territory.         | Schools. | Teachers for normal students. |         |        | Teachers wholly for other departments. |         |        | Total number teachers employed. |         |        |
|-----------------------------|----------|-------------------------------|---------|--------|--|---------|--------|---------------------------------|---------|--------|
|                             |          | Male.                         | Female. | Total. | Male.                                  | Female. | Total. | Male.                           | Female. | Total. |
| United States.....          | 155      | 649                           | 935     | 1,584  | 119                                    | 348     | 467    | 768                             | 1,283   | 2,051  |
| North Atlantic Division.... | 48       | 224                           | 453     | 677    | 20                                     | 168     | 188    | 244                             | 621     | 865    |
| South Atlantic Division.... | 27       | 68                            | 112     | 180    | 14                                     | 17      | 31     | 82                              | 129     | 211    |
| South Central Division....  | 26       | 71                            | 69      | 140    | 33                                     | 31      | 64     | 104                             | 100     | 204    |
| North Central Division....  | 41       | 222                           | 245     | 467    | 39                                     | 116     | 155    | 261                             | 361     | 622    |
| Western Division.....       | 13       | 64                            | 56      | 120    | 13                                     | 16      | 29     | 77                              | 72      | 149    |
| North Atlantic Division:    |          |                               |         |        |  |         |        |                                 |         |        |
| Maine.....                  | 5        | 8                             | 16      | 24     | 2                                      | 8       | 10     | 10                              | 24      | 34     |
| New Hampshire.....          | 1        | 4                             | 3       | 7      | 1                                      | 5       | 6      | 5                               | 8       | 13     |
| Vermont.....                | 2        | 5                             | 10      | 15     | 0                                      | 0       | 0      | 5                               | 10      | 15     |
| Massachusetts.....          | 6        | 24                            | 49      | 73     | 1                                      | 10      | 11     | 25                              | 59      | 84     |
| Rhode Island.....           | 1        | 3                             | 7       | 10     | 0                                      | 6       | 6      | 3                               | 13      | 16     |
| Connecticut.....            | 4        | 8                             | 62      | 70     | 1                                      | 22      | 23     | 9                               | 84      | 93     |
| New York.....               | 14       | 66                            | 173     | 239    | 6                                      | 75      | 81     | 72                              | 248     | 320    |
| New Jersey.....             | 3        | 12                            | 16      | 28     | 4                                      | 22      | 26     | 16                              | 38      | 54     |
| Pennsylvania.....           | 12       | 94                            | 117     | 211    | 5                                      | 20      | 25     | 99                              | 137     | 236    |
| South Atlantic Division:    |          |                               |         |        |  |         |        |                                 |         |        |
| Delaware.....               | 1        | 0                             | 7       | 7      | 0                                      | 0       | 0      | 0                               | 7       | 7      |
| Maryland.....               | 1        | 4                             | 5       | 9      | 0                                      | 4       | 4      | 4                               | 9       | 13     |
| District of Columbia.....   | 2        | 2                             | 13      | 15     | 0                                      | 0       | 0      | 2                               | 13      | 15     |
| Virginia.....               | 3        | 8                             | 14      | 22     | 7                                      | 2       | 9      | 15                              | 16      | 31     |
| West Virginia.....          | 8        | 23                            | 21      | 44     | 3                                      | 3       | 6      | 26                              | 24      | 50     |
| North Carolina.....         | 7        | 21                            | 35      | 56     | 1                                      | 0       | 1      | 22                              | 35      | 57     |
| South Carolina.....         | 1        | 1                             | 6       | 7      | 0                                      | 0       | 0      | 1                               | 6       | 7      |
| Georgia.....                | 2        | 3                             | 8       | 11     | 0                                      | 7       | 7      | 3                               | 15      | 18     |
| Florida.....                | 2        | 6                             | 3       | 9      | 3                                      | 1       | 4      | 9                               | 4       | 13     |
| South Central Division:     |          |                               |         |        |  |         |        |                                 |         |        |
| Kentucky.....               | 2        | 4                             | 8       | 12     | 0                                      | 0       | 0      | 4                               | 8       | 12     |
| Tennessee.....              | 1        | 8                             | 14      | 22     | 2                                      | 2       | 4      | 10                              | 16      | 26     |
| Alabama.....                | 6        | 17                            | 12      | 29     | 17                                     | 19      | 36     | 34                              | 31      | 65     |
| Mississippi.....            | 8        | 12                            | 8       | 20     | 11                                     | 6       | 17     | 23                              | 14      | 37     |
| Louisiana.....              | 1        | 6                             | 8       | 14     | 0                                      | 0       | 0      | 6                               | 8       | 14     |
| Texas.....                  | 2        | 9                             | 15      | 24     | 2                                      | 3       | 5      | 11                              | 18      | 29     |
| Arkansas.....               | 5        | 11                            | 3       | 14     | 1                                      | 1       | 2      | 12                              | 4       | 16     |
| Oklahoma.....               | 1        | 4                             | 1       | 5      | 0                                      | 0       | 0      | 4                               | 1       | 5      |
| Indian Territory.....       |          |                               |         |        |  |         |        |                                 |         |        |
| North Central Division:     |          |                               |         |        |  |         |        |                                 |         |        |
| Ohio.....                   | 6        | 8                             | 33      | 41     | 1                                      | 1       | 2      | 9                               | 34      | 43     |
| Indiana.....                | 3        | 21                            | 6       | 27     | 0                                      | 4       | 4      | 21                              | 10      | 31     |
| Illinois.....               | 3        | 28                            | 23      | 51     | 4                                      | 11      | 15     | 32                              | 34      | 66     |
| Michigan.....               | 2        | 21                            | 17      | 38     | 1                                      | 26      | 27     | 22                              | 43      | 65     |
| Wisconsin.....              | 6        | 36                            | 49      | 85     | 2                                      | 21      | 23     | 38                              | 70      | 108    |
| Minnesota.....              | 5        | 20                            | 39      | 59     | 1                                      | 8       | 9      | 21                              | 47      | 68     |
| Iowa.....                   | 5        | 26                            | 16      | 42     | 1                                      | 8       | 9      | 27                              | 24      | 51     |
| Missouri.....               | 5        | 29                            | 19      | 48     | 29                                     | 37      | 66     | 58                              | 56      | 114    |
| North Dakota.....           | 2        | 9                             | 7       | 16     | 0                                      | 0       | 0      | 9                               | 7       | 16     |
| South Dakota.....           | 2        | 5                             | 15      | 20     | 0                                      | 0       | 0      | 5                               | 15      | 20     |
| Nebraska.....               | 1        | 5                             | 10      | 15     | 0                                      | 0       | 0      | 5                               | 10      | 15     |
| Kansas.....                 | 1        | 14                            | 11      | 25     | 0                                      | 0       | 0      | 14                              | 11      | 25     |
| Western Division:           |          |                               |         |        |  |         |        |                                 |         |        |
| Montana.....                |          |                               |         |        |  |         |        |                                 |         |        |
| Wyoming.....                |          |                               |         |        |  |         |        |                                 |         |        |
| Colorado.....               | 1        | 11                            | 6       | 17     | 6                                      | 0       | 6      | 17                              | 6       | 23     |
| New Mexico.....             | 1        | 2                             | 1       | 3      | 0                                      | 0       | 0      | 2                               | 1       | 3      |
| Arizona.....                | 1        | 1                             | 2       | 3      | 0                                      | 0       | 0      | 1                               | 2       | 3      |
| Utah.....                   |          |                               |         |        |  |         |        |                                 |         |        |
| Nevada.....                 |          |                               |         |        |  |         |        |                                 |         |        |
| Idaho.....                  | 1        | 3                             | 1       | 4      | 0                                      | 0       | 0      | 3                               | 1       | 4      |
| Washington.....             | 2        | 5                             | 10      | 15     | 2                                      | 0       | 2      | 7                               | 10      | 17     |
| Oregon.....                 | 3        | 15                            | 7       | 22     | 3                                      | 3       | 6      | 18                              | 10      | 28     |
| California.....             | 4        | 27                            | 29      | 56     | 2                                      | 13      | 15     | 29                              | 42      | 71     |

TABLE 2.—*Summary of statistics of public normal schools.*

## STUDENTS AND COURSES OF STUDY

| State or Territory.          | Students in normal department. |         |        | Students in business courses. |         |        | Other students in secondary grades. |         |        | Pupils in elementary grades. |         |        |
|------------------------------|--------------------------------|---------|--------|-------------------------------|---------|--------|-------------------------------------|---------|--------|------------------------------|---------|--------|
|                              | Male.                          | Female. | Total. | Male.                         | Female. | Total. | Male.                               | Female. | Total. | Male.                        | Female. | Total. |
| United States.....           | 10,353                         | 26,138  | 36,491 | 130                           | 159     | 289    | 1,228                               | 4,019   | 5,247  | 7,214                        | 8,463   | 15,677 |
| North Atlantic Division..... | 3,093                          | 10,910  | 14,003 | 9                             | 9       | 18     | 267                                 | 2,186   | 2,453  | 2,971                        | 3,576   | 6,547  |
| South Atlantic Division..... | 819                            | 2,278   | 3,097  | 17                            | 106     | 123    | 97                                  | 161     | 258    | 347                          | 601     | 948    |
| South Central Division.....  | 1,376                          | 1,898   | 3,274  | 29                            | 14      | 43     | 139                                 | 163     | 302    | 1,028                        | 1,101   | 2,129  |
| North Central Division.....  | 4,557                          | 9,153   | 13,710 | 50                            | 26      | 76     | 720                                 | 1,480   | 2,200  | 2,173                        | 2,284   | 4,457  |
| Western Division.....        | 508                            | 1,899   | 2,407  | 25                            | 4       | 29     | 5                                   | 29      | 34     | 695                          | 901     | 1,596  |
| North Atlantic Division:     |                                |         |        |                               |         |        |                                     |         |        |                              |         |        |
| Maine.....                   | 173                            | 687     | 860    |                               |         |        |                                     |         |        | 126                          | 172     | 298    |
| New Hampshire.....           | 1                              | 89      | 90     |                               |         |        | 24                                  | 43      | 67     | 81                           | 102     | 183    |
| Vermont.....                 | 41                             | 244     | 285    |                               |         |        |                                     |         |        |                              |         |        |
| Massachusetts.....           | 66                             | 1,122   | 1,188  |                               |         |        |                                     |         |        | 121                          | 187     | 303    |
| Rhode Island.....            | 2                              | 194     | 196    | 0                             | 0       | 0      | 0                                   | 0       | 0      |                              |         |        |
| Connecticut.....             | 9                              | 483     | 492    |                               |         |        |                                     |         |        |                              |         |        |
| New York.....                | 945                            | 4,281   | 5,226  |                               |         |        | 93                                  | 1,956   | 2,049  | 1,282                        | 1,566   | 2,848  |
| New Jersey.....              | 135                            | 689     | 824    |                               |         |        |                                     |         |        | 408                          | 427     | 835    |
| Pennsylvania.....            | 1,721                          | 3,121   | 4,842  | 9                             | 9       | 18     | 150                                 | 187     | 337    | 953                          | 1,122   | 2,075  |
| South Atlantic Division:     |                                |         |        |                               |         |        |                                     |         |        |                              |         |        |
| Delaware.....                | 0                              | 18      | 18     | 0                             | 0       | 0      | 0                                   | 0       | 0      |                              |         |        |
| Maryland.....                | 17                             | 377     | 394    |                               |         |        |                                     |         |        | 16                           | 39      | 55     |
| District of Columbia.....    | 6                              | 71      | 77     | 0                             | 0       | 0      | 0                                   | 0       | 0      |                              |         |        |
| Virginia.....                | 56                             | 373     | 429    |                               |         |        | 25                                  | 5       | 30     | 85                           | 97      | 182    |
| West Virginia.....           | 494                            | 420     | 914    | 17                            | 8       | 25     | 72                                  | 97      | 169    | 67                           | 100     | 167    |
| North Carolina.....          | 159                            | 649     | 808    | 0                             | 48      | 48     |                                     |         |        | 104                          | 194     | 298    |
| South Carolina.....          | 0                              | 59      | 59     |                               |         |        |                                     |         |        |                              |         |        |
| Georgia.....                 | 56                             | 274     | 330    | 0                             | 50      | 50     | 0                                   | 59      | 59     | 13                           | 89      | 102    |
| Florida.....                 | 31                             | 37      | 68     |                               |         |        |                                     |         |        | 62                           | 82      | 144    |
| South Central Division:      |                                |         |        |                               |         |        |                                     |         |        |                              |         |        |
| Kentucky.....                | 16                             | 98      | 114    |                               |         |        |                                     |         |        | 244                          | 264     | 508    |
| Tennessee.....               | 193                            | 315     | 508    |                               |         |        |                                     |         |        |                              |         |        |
| Alabama.....                 | 330                            | 390     | 720    | 16                            | 9       | 25     | 133                                 | 157     | 290    | 218                          | 245     | 463    |
| Mississippi.....             | 312                            | 311     | 623    | 11                            | 0       | 11     | 6                                   | 6       | 12     | 330                          | 324     | 654    |
| Louisiana.....               | 54                             | 178     | 232    | 0                             | 0       | 0      | 0                                   | 0       | 0      | 53                           | 74      | 127    |
| Texas.....                   | 275                            | 409     | 684    |                               |         |        |                                     |         |        | 23                           | 63      | 86     |
| Arkansas.....                | 146                            | 92      | 238    | 2                             | 5       | 7      |                                     |         |        | 160                          | 131     | 291    |
| Oklahoma.....                | 50                             | 105     | 155    |                               |         |        |                                     |         |        |                              |         |        |
| Indian Territory.....        |                                |         |        |                               |         |        |                                     |         |        |                              |         |        |
| North Central Division:      |                                |         |        |                               |         |        |                                     |         |        |                              |         |        |
| Ohio.....                    | 27                             | 373     | 400    | 9                             | 0       | 9      | 45                                  | 77      | 122    | 171                          | 232     | 403    |
| Indiana.....                 | 542                            | 765     | 1,307  | 3                             | 2       | 5      | 18                                  | 20      | 38     | 28                           | 32      | 60     |
| Illinois.....                | 605                            | 1,036   | 1,641  |                               |         |        | 112                                 | 75      | 187    | 642                          | 603     | 1,245  |
| Michigan.....                | 243                            | 818     | 1,061  |                               |         |        | 4                                   | 7       | 11     | 214                          | 167     | 381    |
| Wisconsin.....               | 529                            | 1,269   | 1,798  | 12                            | 4       | 16     | 47                                  | 47      | 94     | 223                          | 284     | 507    |
| Minnesota.....               | 276                            | 1,035   | 1,311  |                               |         |        |                                     |         |        | 121                          | 84      | 205    |
| Iowa.....                    | 558                            | 1,130   | 1,688  | 11                            | 10      | 21     | 3                                   | 5       | 8      | 296                          | 221     | 517    |
| Missouri.....                | 999                            | 1,303   | 2,302  | 15                            | 10      | 25     | 466                                 | 1,199   | 1,665  | 213                          | 200     | 413    |
| North Dakota.....            | 105                            | 188     | 293    |                               |         |        |                                     |         |        |                              |         |        |
| South Dakota.....            | 116                            | 272     | 388    | 0                             | 0       | 0      | 0                                   | 0       | 0      | 37                           | 69      | 106    |
| Nebraska.....                | 16                             | 76      | 92     |                               |         |        |                                     |         |        | 158                          | 306     | 464    |
| Kansas.....                  | 541                            | 888     | 1,429  |                               |         |        | 25                                  | 50      | 75     | 70                           | 86      | 156    |
| Western Division:            |                                |         |        |                               |         |        |                                     |         |        |                              |         |        |
| Montana.....                 |                                |         |        |                               |         |        |                                     |         |        |                              |         |        |
| Wyoming.....                 |                                |         |        |                               |         |        |                                     |         |        |                              |         |        |
| Colorado.....                | 86                             | 277     | 363    |                               |         |        |                                     |         |        | 121                          | 135     | 256    |
| New Mexico.....              | 0                              | 35      | 35     | 0                             | 0       | 0      | 1                                   | 2       | 3      | 16                           | 57      | 73     |
| Arizona.....                 | 46                             | 47      | 93     | 0                             | 0       | 0      | 0                                   | 0       | 0      |                              |         |        |
| Utah.....                    |                                |         |        |                               |         |        |                                     |         |        |                              |         |        |
| Nevada.....                  |                                |         |        |                               |         |        |                                     |         |        |                              |         |        |
| Idaho.....                   | 39                             | 44      | 83     | 0                             | 0       | 0      | 0                                   | 0       | 0      |                              |         |        |
| Washington.....              | 82                             | 154     | 236    |                               |         |        | 4                                   | 27      | 31     | 82                           | 87      | 169    |
| Oregon.....                  | 128                            | 231     | 359    | 25                            | 4       | 29     |                                     |         |        | 96                           | 124     | 220    |
| California.....              | 127                            | 1,111   | 1,238  |                               |         |        |                                     |         |        | 380                          | 498     | 878    |



TABLE 3.—*Summary of statistics of public normal schools.*

## TOTAL ENROLLMENT OF STUDENTS.

| State or Territory.          | Total enrollment in all departments. |         |        | Colored students included in normal department. |         |        | Number of children in model schools. |         |        |
|------------------------------|--------------------------------------|---------|--------|---|---------|--------|--------------------------------------|---------|--------|
|                              | Male.                                | Female. | Total. | Male.   | Female. | Total. | Male.                                | Female. | Total. |
| United States.....           | 18,861                               | 38,843  | 57,704 | 532   | 766     | 1,298  | 8,866                                | 10,595  | 19,461 |
| North Atlantic Division..... | 6,360                                | 16,661  | 23,021 | 12  | 37      | 49     | 3,957                                | 5,286   | 9,243  |
| South Atlantic Division..... | 1,275                                | 3,151   | 4,426  | 262   | 492     | 754    | 128                                  | 274     | 402    |
| South Central Division.....  | 2,582                                | 3,166   | 5,748  | 227   | 205     | 432    | 553                                  | 608     | 1,161  |
| North Central Division.....  | 7,468                                | 12,975  | 20,443 | 31  | 32      | 63     | 3,612                                | 3,789   | 7,401  |
| Western Division.....        | 1,176                                | 2,890   | 4,066  | 0   | 0       | 0      | 616                                  | 638     | 1,254  |
| North Atlantic Division:     |                                      |         |        |   |         |        |                                      |         |        |
| Maine.....                   | 302                                  | 856     | 1,158  | 0   | 0       | 0      | 126                                  | 172     | 298    |
| New Hampshire.....           | 105                                  | 235     | 340    |   |         |        | 105                                  | 145     | 250    |
| Vermont.....                 | 41                                   | 244     | 285    | 0   | 0       | 0      | 20                                   | 30      | 50     |
| Massachusetts.....           | 137                                  | 1,309   | 1,496  | 0   | 5       | 5      | 737                                  | 210     | 947    |
| Rhode Island.....            | 2                                    | 194     | 196    | 0   | 1       | 1      |                                      |         |        |
| Connecticut.....             | 9                                    | 483     | 492    | 0   | 1       | 1      |                                      |         |        |
| New York.....                | 2,328                                | 7,795   | 10,123 | 2   | 14      | 16     | 1,570                                | 2,966   | 4,536  |
| New Jersey.....              | 543                                  | 1,116   | 1,659  | 8   | 12      | 20     | 638                                  | 649     | 1,287  |
| Pennsylvania.....            | 2,843                                | 4,429   | 7,272  | 2   | 4       | 6      | 761                                  | 1,114   | 1,875  |
| South Atlantic Division:     |                                      |         |        |   |         |        |                                      |         |        |
| Delaware.....                | 0                                    | 18      | 18     | 0   | 0       | 0      |                                      |         |        |
| Maryland.....                | 33                                   | 416     | 449    | 0   | 0       | 0      | 16                                   | 39      | 55     |
| District of Columbia.....    | 6                                    | 71      | 77     | 3   | 23      | 26     |                                      |         |        |
| Virginia.....                | 169                                  | 472     | 641    | 53  | 94      | 147    | 51                                   | 84      | 135    |
| West Virginia.....           | 642                                  | 633     | 1,275  | 16  | 22      | 38     |                                      |         |        |
| North Carolina.....          | 263                                  | 891     | 1,154  | 184   | 348     | 532    | 8                                    | 46      | 54     |
| South Carolina.....          | 0                                    | 59      | 59     | 0   | 0       | 0      | 30                                   | 52      | 82     |
| Georgia.....                 | 69                                   | 472     | 541    |   |         |        | 23                                   | 53      | 76     |
| Florida.....                 | 93                                   | 119     | 212    | 6   | 5       | 11     |                                      |         |        |
| South Central Division:      |                                      |         |        |   |         |        |                                      |         |        |
| Kentucky.....                | 260                                  | 362     | 622    | 16  | 25      | 41     | 118                                  | 113     | 231    |
| Tennessee.....               | 193                                  | 315     | 508    |   |         |        | 62                                   | 107     | 169    |
| Alabama.....                 | 693                                  | 805     | 1,498  | 82  | 91      | 173    | 169                                  | 167     | 336    |
| Mississippi.....             | 665                                  | 635     | 1,300  | 49  | 48      | 97     | 100                                  | 110     | 210    |
| Louisiana.....               | 107                                  | 252     | 359    | 0   | 0       | 0      | 53                                   | 74      | 127    |
| Texas.....                   | 298                                  | 472     | 770    |   |         |        |                                      |         |        |
| Arkansas.....                | 316                                  | 220     | 536    | 80  | 41      | 121    | 51                                   | 38      | 88     |
| Oklahoma.....                | 50                                   | 105     | 155    | 0   | 0       | 0      | 0                                    | 0       | 0      |
| Indian Territory.....        |                                      |         |        |   |         |        |                                      |         |        |
| North Central Division:      |                                      |         |        |   |         |        |                                      |         |        |
| Ohio.....                    | 258                                  | 676     | 934    | 0   | 4       | 4      | 734                                  | 746     | 1,480  |
| Indiana.....                 | 585                                  | 825     | 1,410  | 7   | 7       | 14     | 50                                   | 70      | 120    |
| Illinois.....                | 1,294                                | 1,779   | 3,073  | 16  | 18      | 34     | 592                                  | 580     | 1,172  |
| Michigan.....                | 461                                  | 992     | 1,453  | 0   | 1       | 1      | 545                                  | 478     | 1,023  |
| Wisconsin.....               | 793                                  | 1,622   | 2,415  | 0   | 0       | 0      | 438                                  | 554     | 992    |
| Minnesota.....               | 397                                  | 1,119   | 1,516  | 0   | 0       | 0      | 567                                  | 612     | 1,179  |
| Iowa.....                    | 870                                  | 1,364   | 2,234  | 0   | 0       | 0      | 84                                   | 78      | 162    |
| Missouri.....                | 1,714                                | 2,691   | 4,405  |   |         |        | 236                                  | 206     | 442    |
| North Dakota.....            | 105                                  | 188     | 293    |   |         |        | 38                                   | 40      | 78     |
| South Dakota.....            | 153                                  | 341     | 494    | 1   | 1       | 2      | 179                                  | 234     | 413    |
| Nebraska.....                | 174                                  | 382     | 556    | 0   | 0       | 0      | 79                                   | 105     | 184    |
| Kansas.....                  | 664                                  | 996     | 1,660  | 7   | 1       | 8      | 70                                   | 86      | 156    |
| Western Division:            |                                      |         |        |   |         |        |                                      |         |        |
| Montana.....                 |                                      |         |        |   |         |        |                                      |         |        |
| Wyoming.....                 |                                      |         |        |   |         |        |                                      |         |        |
| Colorado.....                | 207                                  | 412     | 619    |   |         |        | 121                                  | 135     | 256    |
| New Mexico.....              | 17                                   | 94      | 111    | 0   | 0       | 0      | 0                                    | 0       | 0      |
| Arizona.....                 | 46                                   | 47      | 93     | 0   | 0       | 0      | 0                                    | 0       | 0      |
| Utah.....                    |                                      |         |        |   |         |        |                                      |         |        |
| Nevada.....                  |                                      |         |        |   |         |        |                                      |         |        |
| Idaho.....                   | 39                                   | 44      | 83     | 0   | 0       | 0      | 0                                    | 0       | 0      |
| Washington.....              | 168                                  | 268     | 436    |   |         |        | 109                                  | 116     | 225    |
| Oregon.....                  | 249                                  | 359     | 608    |   |         |        | 10                                   | 15      | 25     |
| California.....              | 450                                  | 1,666   | 2,116  |   |         |        | 376                                  | 372     | 748    |

TABLE 4.—*Summary of statistics of public normal schools.*

## NUMBER OF NORMAL AND OTHER GRADUATES.

| State or Territory.        | Normal graduates. |         |        | Graduates in business courses. |         |        | Graduates in other courses. |         |        |
|----------------------------|-------------------|---------|--------|--------------------------------|---------|--------|-----------------------------|---------|--------|
|                            | Male.             | Female. | Total. | Male.                          | Female. | Total. | Male.                       | Female. | Total. |
| United States .....        | 1,013             | 4,479   | 5,492  | 117                            | 174     | 291    | 96                          | 278     | 374    |
| North Atlantic Division .. | 357               | 2,289   | 2,646  | 25                             | 58      | 83     | 23                          | 156     | 179    |
| South Atlantic Division .. | 53                | 294     | 347    | 7                              | 7       | 14     | 6                           | 11      | 17     |
| South Central Division ..  | 119               | 247     | 366    | 36                             | 73      | 109    | 16                          | 36      | 52     |
| North Central Division ..  | 435               | 1,257   | 1,692  | 20                             | 15      | 35     | 34                          | 34      | 68     |
| Western Division .....     | 49                | 392     | 441    | 29                             | 21      | 50     | 17                          | 41      | 58     |
| North Atlantic Division:   |                   |         |        |                                |         |        |                             |         |        |
| Maine .....                | 24                | 99      | 123    |                                |         |        |                             |         |        |
| New Hampshire .....        | 0                 | 19      | 19     |                                |         |        |                             |         |        |
| Vermont .....              | 7                 | 55      | 62     |                                |         |        |                             |         |        |
| Massachusetts .....        | 6                 | 191     | 197    |                                |         |        |                             |         |        |
| Rhode Island .....         | 1                 | 13      | 14     | 0                              | 0       | 0      | 0                           | 0       | 0      |
| Connecticut .....          | 1                 | 165     | 166    |                                |         |        |                             |         |        |
| New York .....             | 122               | 853     | 975    | 17                             | 50      | 67     | 10                          | 141     | 151    |
| New Jersey .....           | 7                 | 196     | 203    |                                |         |        | 13                          | 8       | 21     |
| Pennsylvania .....         | 189               | 698     | 887    | 8                              | 8       | 16     | 0                           | 7       | 7      |
| South Atlantic Division:   |                   |         |        |                                |         |        |                             |         |        |
| Delaware .....             | 0                 | 18      | 18     |                                |         |        |                             |         |        |
| Maryland .....             | 7                 | 52      | 59     | 0                              | 0       | 0      | 0                           | 0       | 0      |
| District of Columbia ..    | 5                 | 68      | 73     |                                |         |        |                             |         |        |
| Virginia .....             | 8                 | 53      | 61     |                                |         |        |                             |         |        |
| West Virginia .....        | 24                | 29      | 53     | 7                              | 2       | 9      | 6                           | 1       | 7      |
| North Carolina .....       | 3                 | 45      | 48     |                                |         |        |                             |         |        |
| South Carolina .....       | 0                 | 7       | 7      | 0                              | 0       | 0      | 0                           | 0       | 0      |
| Georgia .....              | 0                 | 20      | 20     | 0                              | 5       | 5      | 0                           | 10      | 10     |
| Florida .....              | 6                 | 2       | 8      |                                |         |        |                             |         |        |
| South Central Division:    |                   |         |        |                                |         |        |                             |         |        |
| Kentucky .....             | 1                 | 42      | 43     | 19                             | 70      | 89     |                             |         |        |
| Tennessee .....            | 44                | 100     | 144    |                                |         |        |                             |         |        |
| Alabama .....              | 31                | 41      | 72     | 1                              | 3       | 4      | 16                          | 56      | 52     |
| Mississippi .....          | 16                | 17      | 33     | 16                             | 0       | 16     |                             |         |        |
| Louisiana .....            | 5                 | 29      | 34     |                                |         |        |                             |         |        |
| Texas .....                | 10                | 11      | 21     |                                |         |        |                             |         |        |
| Arkansas .....             | 12                | 7       | 19     |                                |         |        |                             |         |        |
| Oklahoma .....             | 0                 | 0       | 0      | 0                              | 0       | 0      | 0                           | 0       | 0      |
| Indian Territory .....     |                   |         |        |                                |         |        |                             |         |        |
| North Central Division:    |                   |         |        |                                |         |        |                             |         |        |
| Ohio .....                 | 0                 | 209     | 209    | 12                             | 13      | 25     | 7                           | 6       | 13     |
| Indiana .....              | 41                | 60      | 101    |                                |         |        |                             |         |        |
| Illinois .....             | 24                | 23      | 47     |                                |         |        | 2                           | 0       | 2      |
| Michigan .....             | 35                | 200     | 235    |                                |         |        |                             |         |        |
| Wisconsin .....            | 84                | 131     | 215    |                                |         |        | 12                          | 19      | 31     |
| Minnesota .....            | 27                | 246     | 273    |                                |         |        |                             |         |        |
| Iowa .....                 | 63                | 93      | 156    | 7                              | 1       | 8      | 5                           | 8       | 13     |
| Missouri .....             | 85                | 106     | 191    | 1                              | 1       | 2      | 1                           | 1       | 2      |
| North Dakota .....         | 14                | 12      | 26     |                                |         |        |                             |         |        |
| South Dakota .....         | 8                 | 37      | 45     | 0                              | 0       | 0      | 0                           | 0       | 0      |
| Nebraska .....             | 16                | 76      | 92     |                                |         |        |                             |         |        |
| Kansas .....               | 38                | 64      | 102    | 0                              | 0       | 0      | 7                           | 0       | 7      |
| Western Division:          |                   |         |        |                                |         |        |                             |         |        |
| Montana .....              |                   |         |        |                                |         |        |                             |         |        |
| Wyoming .....              |                   |         |        |                                |         |        |                             |         |        |
| Colorado .....             |                   |         |        |                                |         |        | 7                           | 25      | 32     |
| New Mexico .....           | 0                 | 1       | 1      | 0                              | 0       | 0      | 0                           | 0       | 0      |
| Arizona .....              | 3                 | 4       | 7      | 0                              | 0       | 0      | 0                           | 0       | 0      |
| Utah .....                 |                   |         |        |                                |         |        |                             |         |        |
| Nevada .....               |                   |         |        |                                |         |        |                             |         |        |
| Idaho .....                | 0                 | 0       | 0      | 0                              | 0       | 0      | 0                           | 0       | 0      |
| Washington .....           | 2                 | 6       | 8      |                                |         |        | 3                           | 9       | 12     |
| Oregon .....               | 15                | 50      | 65     | 29                             | 21      | 50     | 7                           | 7       | 14     |
| California .....           | 29                | 331     | 360    |                                |         |        |                             |         |        |

TABLE 5.—*Summary of statistics of public normal schools.*

## INCOME FROM VARIOUS SOURCES.

| State or Territory.          | Appropriated by States, counties, or cities for support for 1894-95. | Received from tuition and other fees. | Received from productive funds. | Received from other sources and unclassified. | Total income for the year 1894-95. |
|------------------------------|--|---------------------------------------|---------------------------------|---|------------------------------------|
| United States .....          | \$1, 917, 375  | \$370, 849                            | \$58, 808                       | \$362, 431                                    | \$2, 709, 463                      |
| North Atlantic Division..... | 773, 035   | 199, 590                              | 3, 006                          | 229, 578                                      | 1, 205, 209                        |
| South Atlantic Division..... | 141, 017   | 30, 712                               | 1, 578                          | 12, 125                                       | 185, 432                           |
| South Central Division.....  | 113, 460   | 23, 174                               | 94                              | 98, 048                                       | 234, 776                           |
| North Central Division.....  | 668, 063   | 99, 148                               | 54, 130                         | 580   | 821, 921                           |
| Western Division.....        | 221, 800   | 18, 225                               |                                 | 22, 100                                       | 262, 125                           |
| North Atlantic Division:     |  |                                       |                                 |   |                                    |
| Maine.....                   | 25, 600  | 1, 860                                |                                 |   | 27, 460                            |
| New Hampshire.....           | 12, 000  |                                       |                                 |   | 12, 000                            |
| Vermont.....                 | 7, 264   | 2, 050                                | 760                             |   | 10, 074                            |
| Massachusetts.....           | 78, 397  |                                       |                                 | 1, 802  | 80, 199                            |
| Rhode Island.....            | 18, 000  | 0                                     | 0                               | 0   | 18, 000                            |
| Connecticut.....             | 72, 000  |                                       |                                 |   | 72, 000                            |
| New York.....                | 360, 111   | 19, 008                               | 1, 922                          | 39, 922                                       | 420, 963                           |
| New Jersey.....              | 40, 570  | 25, 398                               |                                 |   | 65, 968                            |
| Pennsylvania.....            | 159, 093   | 151, 274                              | 324                             | 187, 854                                      | 498, 545                           |
| South Atlantic Division:     |  |                                       |                                 |   |                                    |
| Delaware.....                | 9, 100   | 0                                     | 0                               | 0   | 9, 100                             |
| Maryland.....                | 10, 500  | 7, 303                                | 0                               | 0   | 17, 803                            |
| District of Columbia.....    |  |                                       |                                 |   |                                    |
| Virginia.....                | 30, 200  | 5, 983                                |                                 | 1, 900  | 38, 083                            |
| West Virginia.....           | 28, 267  | 2, 600                                | 560                             | 3, 000  | 34, 427                            |
| North Carolina.....          | 19, 800  | 9, 404                                | 1, 018                          | 2, 225  | 32, 447                            |
| South Carolina.....          | 5, 250   | 110                                   |                                 | 2, 000  | 7, 360                             |
| Georgia.....                 | 32, 900  | 5, 200                                |                                 | 3, 000  | 41, 100                            |
| Florida.....                 | 5, 000   | 112                                   |                                 |   | 5, 112                             |
| South Central Division:      |  |                                       |                                 |   |                                    |
| Kentucky.....                | 9, 200   | 53                                    | 94                              | 2, 900  | 12, 247                            |
| Tennessee.....               | 15, 030  | 5, 000                                |                                 | 40, 000                                       | 60, 000                            |
| Alabama.....                 | 18, 525  | 7, 700                                |                                 | 35, 373                                       | 61, 598                            |
| Mississippi.....             | 8, 425   | 3, 776                                |                                 | 1, 625  | 13, 826                            |
| Louisiana.....               | 13, 750  | 1, 695                                |                                 | 1, 500  | 16, 945                            |
| Texas.....                   | 40, 500  | 3, 700                                | 0                               | 2, 000  | 46, 200                            |
| Arkansas.....                | 8, 060   | 1, 000                                |                                 | 2, 900  | 11, 960                            |
| Oklahoma.....                |  | 250                                   |                                 | 11, 750                                       | 12, 000                            |
| Indian Territory.....        |  |                                       |                                 |   |                                    |
| North Central Division:      |  |                                       |                                 |   |                                    |
| Ohio.....                    | 5, 000   | 6, 300                                |                                 |   | 11, 300                            |
| Indiana.....                 | 40, 000  | 3, 200                                |                                 |   | 43, 200                            |
| Illinois.....                | 56, 500  | 14, 817                               |                                 |   | 71, 317                            |
| Michigan.....                | 58, 450  | 7, 000                                | 4, 143                          |   | 69, 593                            |
| Wisconsin.....               | 155, 271   | 13, 323                               | 34, 987                         |   | 203, 581                           |
| Minnesota.....               | 88, 000  | 6, 484                                |                                 |   | 94, 484                            |
| Iowa.....                    | 38, 525  | 11, 835                               |                                 | 380   | 50, 740                            |
| Missouri.....                | 142, 317   | 24, 453                               |                                 | 200   | 166, 970                           |
| North Dakota.....            | 22, 000  |                                       |                                 |   | 22, 000                            |
| South Dakota.....            | 26, 000  | 1, 836                                | 0                               | 0   | 27, 836                            |
| Nebraska.....                | 30, 000  |                                       |                                 |   | 30, 000                            |
| Kansas.....                  | 6, 000   | 9, 900                                | 15, 000                         |   | 30, 900                            |
| Western Division:            |  |                                       |                                 |   |                                    |
| Montana.....                 |  |                                       |                                 |   |                                    |
| Wyoming.....                 |  |                                       |                                 |   |                                    |
| Colorado.....                | 35, 000  | 1, 800                                |                                 |   | 36, 800                            |
| New Mexico.....              | 0  | 0                                     | 0                               | 3, 500  | 3, 500                             |
| Arizona.....                 | 0  | 400                                   | 0                               | 18, 600                                       | 19, 000                            |
| Utah.....                    |  |                                       |                                 |   |                                    |
| Nevada.....                  |  |                                       |                                 |   |                                    |
| Idaho.....                   | 7, 600   |                                       | 0                               | 0   | 7, 600                             |
| Washington.....              | 39, 000  |                                       |                                 |   | 39, 000                            |
| Oregon.....                  | 23, 200  | 10, 960                               |                                 |   | 34, 160                            |
| California.....              | 117, 000   | 5, 065                                |                                 |   | 122, 065                           |

TABLE 6.—*Summary of statistics of public normal schools.*

## VALUE OF BUILDINGS AND OTHER PROPERTY.

| State or Territory.             | Schools reporting libraries. | Volumes in libraries. | Estimated value of libraries. | Value of buildings, grounds, apparatus, etc. | Value of other property. | Value of benefactions received 1894-95. | Appropriated by States, counties, and cities for buildings and improvements. |
|---------------------------------|------------------------------|-----------------------|-------------------------------|--|--------------------------|---|--|
| United States .....             | 119                          | 300,776               | \$369,333                     | \$14,454,275                                 | \$410,347                | \$3,326                                 | \$1,003,933  |
| North Atlantic Division.....    | 36                           | 119,483               | 116,983                       | 7,104,475                                    | 32,878                   | 2,076                                   | 449,959  |
| South Atlantic Division.....    | 20                           | 18,804                | 24,625                        | 976,734                                      | 7,960                    | 100                                     | 100,309  |
| South Central Division.....     | 19                           | 26,136                | 40,345                        | 760,806                                      | 10,509                   | 1,000                                   | 11,200   |
| North Central Division.....     | 36                           | 125,083               | 173,780                       | 4,177,060                                    | 341,000                  | .....                                   | 320,165  |
| Western Division .....          | 8                            | 11,270                | 13,600                        | 1,435,200                                    | 18,000                   | 150                                     | 122,300  |
| <b>North Atlantic Division:</b> |                              |                       |                               |  |                          |   |  |
| Maine .....                     | 4                            | 5,137                 | 5,500                         | 129,500                                      | .....                    | .....                                   | 39,000   |
| New Hampshire.....              | 1                            | 1,700                 | 1,000                         | 85,000                                       | .....                    | .....                                   | .....  |
| Vermont .....                   | 2                            | 6,000                 | 1,500                         | 22,000                                       | 10,000                   | .....                                   | .....  |
| Massachusetts .....             | 4                            | 22,798                | 21,000                        | 430,250                                      | .....                    | .....                                   | .....  |
| Rhode Island.....               | 1                            | 2,000                 | 3,000                         | 25,000                                       | .....                    | 0                                       | 0  |
| Connecticut .....               | 4                            | 14,600                | 5,000                         | 135,000                                      | .....                    | .....                                   | 240,000  |
| New York.....                   | 10                           | 35,172                | 43,826                        | 3,081,889                                    | .....                    | .....                                   | 60,142   |
| New Jersey.....                 | 2                            | 4,619                 | 3,500                         | 433,000                                      | .....                    | .....                                   | 10,693   |
| Pennsylvania.....               | 8                            | 27,457                | 32,657                        | 2,702,836                                    | 22,874                   | 2,076                                   | 100,124  |
| <b>South Atlantic Division:</b> |                              |                       |                               |  |                          |   |  |
| Delaware.....                   | .....                        | .....                 | .....                         | 16,000                                       | .....                    | .....                                   | .....  |
| Maryland.....                   | 1                            | 3,000                 | 5,000                         | 150,000                                      | 0                        | 0                                       | 43,776   |
| District of Columbia.....       | 1                            | 350                   | 525                           | .....  | .....                    | .....                                   | 0  |
| Virginia.....                   | 1                            | 3,000                 | 3,000                         | 239,059                                      | .....                    | .....                                   | .....  |
| West Virginia.....              | 6                            | 4,000                 | 6,450                         | 279,500                                      | 7,810                    | .....                                   | 42,000   |
| North Carolina.....             | 6                            | 4,738                 | 3,425                         | 80,375                                       | 150                      | 100                                     | 5,033  |
| South Carolina.....             | 1                            | 900                   | 925                           | .....  | .....                    | .....                                   | .....  |
| Georgia.....                    | 2                            | 2,200                 | 4,200                         | 182,000                                      | .....                    | .....                                   | 1,000  |
| Florida.....                    | 2                            | 616                   | 1,100                         | 29,800                                       | .....                    | .....                                   | 8,500  |
| <b>South Central Division:</b>  |                              |                       |                               |  |                          |   |  |
| Kentucky.....                   | 2                            | 931                   | 750                           | 19,564                                       | .....                    | 1,000                                   | .....  |
| Tennessee.....                  | .....                        | .....                 | .....                         | 300,000                                      | .....                    | .....                                   | .....  |
| Alabama.....                    | 4                            | 5,285                 | 4,000                         | 126,142                                      | 10,509                   | .....                                   | 500  |
| Mississippi.....                | 6                            | 3,310                 | 5,325                         | 35,600                                       | .....                    | .....                                   | .....  |
| Louisiana.....                  | 1                            | 2,000                 | 2,000                         | 60,000                                       | .....                    | .....                                   | 7,500  |
| Texas.....                      | 1                            | 11,000                | 25,000                        | 100,000                                      | .....                    | .....                                   | 3,000  |
| Arkansas.....                   | 4                            | 3,460                 | 3,120                         | 76,500                                       | .....                    | .....                                   | 200  |
| Oklahoma.....                   | 1                            | 150                   | 150                           | 43,000                                       | .....                    | .....                                   | .....  |
| Indian Territory.....           | .....                        | .....                 | .....                         | .....  | .....                    | .....                                   | .....  |
| <b>North Central Division:</b>  |                              |                       |                               |  |                          |   |  |
| Ohio.....                       | 5                            | 1,125                 | 750                           | 36,000                                       | .....                    | .....                                   | .....  |
| Indiana.....                    | 1                            | 12,000                | 15,000                        | 276,000                                      | .....                    | .....                                   | 20,000   |
| Illinois.....                   | 4                            | 24,000                | 46,000                        | 900,000                                      | .....                    | .....                                   | 40,000   |
| Michigan.....                   | 2                            | 15,685                | 30,000                        | 260,560                                      | 70,000                   | .....                                   | 20,000   |
| Wisconsin.....                  | 5                            | 17,345                | 22,500                        | 597,000                                      | .....                    | .....                                   | 12,736   |
| Minnesota.....                  | 4                            | 12,638                | 13,130                        | 660,000                                      | .....                    | .....                                   | 54,500   |
| Iowa.....                       | 5                            | 6,900                 | 8,900                         | 132,500                                      | .....                    | .....                                   | 36,000   |
| Missouri.....                   | 4                            | 10,150                | 6,900                         | 850,000                                      | .....                    | .....                                   | 131,929  |
| North Dakota.....               | 2                            | 1,800                 | 2,600                         | 130,000                                      | .....                    | .....                                   | .....  |
| South Dakota.....               | 2                            | 7,440                 | 6,000                         | 105,000                                      | .....                    | 0                                       | 0  |
| Nebraska.....                   | 1                            | 7,000                 | 10,000                        | 60,000                                       | .....                    | .....                                   | 5,000  |
| Kansas.....                     | 1                            | 9,000                 | 12,000                        | 170,000                                      | 271,000                  | .....                                   | .....  |
| <b>Western Division:</b>        |                              |                       |                               |  |                          |   |  |
| Montana.....                    | .....                        | .....                 | .....                         | .....  | .....                    | .....                                   | .....  |
| Wyoming.....                    | .....                        | .....                 | .....                         | .....  | .....                    | .....                                   | .....  |
| Colorado.....                   | 1                            | 6,000                 | 7,500                         | 150,000                                      | .....                    | .....                                   | 10,000   |
| New Mexico.....                 | 0                            | 0                     | 0                             | 1,200  | .....                    | .....                                   | .....  |
| Arizona.....                    | 1                            | 360                   | 450                           | 23,000                                       | 18,000                   | 0                                       | 1,300  |
| Utah.....                       | .....                        | .....                 | .....                         | .....  | .....                    | .....                                   | .....  |
| Nevada.....                     | .....                        | .....                 | .....                         | .....  | .....                    | .....                                   | .....  |
| Idaho.....                      | 1                            | 160                   | 100                           | 5,000  | .....                    | .....                                   | 25,000   |
| Washington.....                 | .....                        | .....                 | .....                         | 95,000                                       | .....                    | .....                                   | 6,000  |
| Oregon.....                     | 3                            | 550                   | 300                           | 61,000                                       | .....                    | 150                                     | .....  |
| California.....                 | 2                            | 4,200                 | 5,250                         | 1,100,000                                    | .....                    | .....                                   | 80,000   |



TABLE 7.—Summary of statistics of private normal schools.

## SCHOOLS AND INSTRUCTORS.

| State or Territory.          | Schools. | Teachers for normal students. |         |        | Teachers wholly for other departments. |         |        | Total number teachers employed. |         |        |
|------------------------------|----------|-------------------------------|---------|--------|--|---------|--------|---------------------------------|---------|--------|
|                              |          | Male.                         | Female. | Total. | Male.                                  | Female. | Total. | Male.                           | Female. | Total. |
| United States.....           | 201      | 616                           | 443     | 1,059  | 397                                    | 503     | 900    | 1,013                           | 946     | 1,959  |
| North Atlantic Division..... | 14       | 71                            | 51      | 122    | 68                                     | 64      | 132    | 139                             | 115     | 254    |
| South Atlantic Division..... | 39       | 69                            | 102     | 171    | 48                                     | 177     | 225    | 117                             | 279     | 396    |
| South Central Division.....  | 49       | 98                            | 88      | 186    | 102                                    | 122     | 224    | 200                             | 210     | 410    |
| North Central Division.....  | 89       | 345                           | 182     | 527    | 168                                    | 130     | 298    | 513                             | 312     | 825    |
| Western Division.....        | 10       | 33                            | 20      | 53     | 11                                     | 10      | 21     | 44                              | 30      | 74     |
| North Atlantic Division:     |          |                               |         |        |  |         |        |                                 |         |        |
| Maine.....                   | 1        | 1                             | 2       | 3      |  |         |        | 1                               | 2       | 3      |
| New Hampshire.....           |          |                               |         |        |  |         |        |                                 |         |        |
| Vermont.....                 | 2        | 3                             | 12      | 15     |  |         |        | 3                               | 12      | 15     |
| Massachusetts.....           | 2        | 0                             | 10      | 10     |  |         |        | 0                               | 10      | 10     |
| Rhode Island.....            |          |                               |         |        |  |         |        |                                 |         |        |
| Connecticut.....             |          |                               |         |        |  |         |        |                                 |         |        |
| New York.....                |          |                               |         |        |  |         |        |                                 |         |        |
| New Jersey.....              |          |                               |         |        |  |         |        |                                 |         |        |
| Pennsylvania.....            | 9        | 67                            | 27      | 94     | 68                                     | 64      | 132    | 135                             | 91      | 226    |
| South Atlantic Division:     |          |                               |         |        |  |         |        |                                 |         |        |
| Delaware.....                |          |                               |         |        |  |         |        |                                 |         |        |
| Maryland.....                | 3        | 3                             | 1       | 4      | 1                                      | 1       | 2      | 4                               | 2       | 6      |
| District of Columbia.....    |          |                               |         |        |  |         |        |                                 |         |        |
| Virginia.....                | 7        | 20                            | 49      | 69     | 22                                     | 35      | 57     | 42                              | 84      | 126    |
| West Virginia.....           | 2        | 7                             | 5       | 12     | 2                                      | 1       | 3      | 9                               | 6       | 15     |
| North Carolina.....          | 11       | 17                            | 16      | 33     | 3                                      | 46      | 49     | 20                              | 62      | 82     |
| South Carolina.....          | 5        | 3                             | 7       | 10     | 8                                      | 21      | 29     | 11                              | 28      | 39     |
| Georgia.....                 | 8        | 12                            | 20      | 32     | 11                                     | 63      | 74     | 23                              | 83      | 106    |
| Florida.....                 | 3        | 7                             | 4       | 11     | 1                                      | 10      | 11     | 8                               | 14      | 22     |
| South Central Division:      |          |                               |         |        |  |         |        |                                 |         |        |
| Kentucky.....                | 14       | 27                            | 14      | 41     | 11                                     | 13      | 24     | 38                              | 27      | 65     |
| Tennessee.....               | 13       | 34                            | 20      | 54     | 28                                     | 41      | 69     | 62                              | 61      | 123    |
| Alabama.....                 | 5        | 9                             | 25      | 34     | 44                                     | 24      | 68     | 53                              | 49      | 102    |
| Mississippi.....             | 7        | 16                            | 11      | 27     | 7                                      | 19      | 26     | 23                              | 30      | 53     |
| Louisiana.....               | 1        | 0                             | 3       | 3      | 1                                      | 5       | 6      | 1                               | 8       | 9      |
| Texas.....                   | 6        | 8                             | 13      | 21     | 6                                      | 13      | 19     | 14                              | 26      | 40     |
| Arkansas.....                | 3        | 4                             | 2       | 6      | 5                                      | 7       | 12     | 9                               | 9       | 18     |
| Oklahoma.....                |          |                               |         |        |  |         |        |                                 |         |        |
| Indian Territory.....        |          |                               |         |        |  |         |        |                                 |         |        |
| North Central Division:      |          |                               |         |        |  |         |        |                                 |         |        |
| Ohio.....                    | 11       | 61                            | 21      | 82     | 35                                     | 14      | 49     | 96                              | 35      | 131    |
| Indiana.....                 | 13       | 62                            | 47      | 109    | 27                                     | 8       | 35     | 89                              | 55      | 144    |
| Illinois.....                | 9        | 33                            | 16      | 49     | 21                                     | 23      | 44     | 54                              | 39      | 93     |
| Michigan.....                | 6        | 20                            | 17      | 37     | 4                                      | 9       | 13     | 24                              | 26      | 50     |
| Wisconsin.....               | 2        | 6                             | 1       | 7      | 9                                      | 8       | 17     | 15                              | 9       | 24     |
| Minnesota.....               | 3        | 14                            | 0       | 14     | 0                                      | 1       | 1      | 14                              | 1       | 15     |
| Iowa.....                    | 17       | 43                            | 34      | 77     | 13                                     | 20      | 33     | 56                              | 54      | 110    |
| Missouri.....                | 13       | 32                            | 12      | 44     | 34                                     | 23      | 57     | 66                              | 35      | 101    |
| North Dakota.....            | 1        | 1                             | 4       | 5      | 1                                      | 2       | 3      | 2                               | 6       | 8      |
| South Dakota.....            | 1        | 6                             | 2       | 8      | 0                                      | 0       | 0      | 6                               | 2       | 8      |
| Nebraska.....                | 8        | 42                            | 15      | 57     | 17                                     | 14      | 31     | 59                              | 29      | 88     |
| Kansas.....                  | 5        | 25                            | 13      | 38     | 7                                      | 8       | 15     | 32                              | 21      | 53     |
| Western Division:            |          |                               |         |        |  |         |        |                                 |         |        |
| Montana.....                 | 1        | 1                             | 1       | 2      | 2                                      | 3       | 5      | 3                               | 4       | 7      |
| Wyoming.....                 | 1        | 2                             | 0       | 2      | 0                                      | 1       | 1      | 2                               | 1       | 3      |
| Colorado.....                | 1        | 2                             | 5       | 7      | 0                                      | 0       | 0      | 2                               | 5       | 7      |
| New Mexico.....              |          |                               |         |        |  |         |        |                                 |         |        |
| Arizona.....                 |          |                               |         |        |  |         |        |                                 |         |        |
| Utah.....                    | 2        | 22                            | 2       | 24     | 7                                      | 4       | 11     | 29                              | 6       | 35     |
| Nevada.....                  |          |                               |         |        |  |         |        |                                 |         |        |
| Idaho.....                   |          |                               |         |        |  |         |        |                                 |         |        |
| Washington.....              |          |                               |         |        |  |         |        |                                 |         |        |
| Oregon.....                  |          |                               |         |        |  |         |        |                                 |         |        |
| California.....              | 5        | 6                             | 12      | 18     | 2                                      | 2       | 4      | 8                               | 14      | 22     |

TABLE 8.—*Summary of statistics of private normal schools.*

## STUDENTS AND COURSES OF STUDY.

| State or Territory.          | Students in normal department. |         |        | Students in business courses. |         |        | Other students in secondary grades. |         |        | Pupils in elementary grades. |         |        |
|------------------------------|--------------------------------|---------|--------|-------------------------------|---------|--------|-------------------------------------|---------|--------|------------------------------|---------|--------|
|                              | Male.                          | Female. | Total. | Male.                         | Female. | Total. | Male.                               | Female. | Total. | Male.                        | Female. | Total. |
| United States .....          | 11,442                         | 10,571  | 22,013 | 3,547                         | 1,663   | 5,210  | 4,566                               | 4,021   | 8,589  | 8,990                        | 9,274   | 18,264 |
| North Atlantic Division..... | 1,373                          | 1,210   | 2,583  | 260                           | 149     | 409    | 137                                 | 82      | 219    | 422                          | 325     | 747    |
| South Atlantic Division..... | 661                            | 979     | 1,640  | 72                            | 29      | 101    | 251                                 | 412     | 663    | 2,449                        | 3,526   | 5,975  |
| South Central Division.....  | 1,410                          | 1,332   | 2,742  | 200                           | 145     | 345    | 457                                 | 450     | 907    | 2,683                        | 2,965   | 5,648  |
| North Central Division.....  | 7,802                          | 6,572   | 14,374 | 2,917                         | 1,316   | 4,233  | 3,539                               | 2,982   | 6,521  | 3,072                        | 2,158   | 5,230  |
| Western Division.....        | 196                            | 478     | 674    | 98                            | 24      | 122    | 184                                 | 95      | 279    | 364                          | 300     | 664    |
| North Atlantic Division:     |                                |         |        |                               |         |        |                                     |         |        |                              |         |        |
| Maine.....                   | 70                             | 75      | 145    |                               |         |        |                                     |         |        |                              |         |        |
| New Hampshire.....           |                                |         |        |                               |         |        |                                     |         |        |                              |         |        |
| Vermont.....                 | 120                            | 195     | 315    |                               |         |        |                                     |         |        |                              |         |        |
| Massachusetts.....           | 0                              | 75      | 75     |                               |         |        |                                     |         |        |                              |         |        |
| Rhode Island.....            |                                |         |        |                               |         |        |                                     |         |        |                              |         |        |
| Connecticut.....             |                                |         |        |                               |         |        |                                     |         |        |                              |         |        |
| New York.....                |                                |         |        |                               |         |        |                                     |         |        |                              |         |        |
| New Jersey.....              |                                |         |        |                               |         |        |                                     |         |        |                              |         |        |
| Pennsylvania.....            | 1,183                          | 865     | 2,048  | 260                           | 149     | 409    | 137                                 | 82      | 219    | 422                          | 325     | 747    |
| South Atlantic Division:     |                                |         |        |                               |         |        |                                     |         |        |                              |         |        |
| Delaware.....                |                                |         |        |                               |         |        |                                     |         |        |                              |         |        |
| Maryland.....                | 24                             | 40      | 64     | 8                             | 9       | 17     | 4                                   | 7       | 11     | 1                            | 7       | 8      |
| District of Columbia.....    |                                |         |        |                               |         |        |                                     |         |        |                              |         |        |
| Virginia.....                | 198                            | 258     | 456    | 8                             | 3       | 11     | 38                                  | 27      | 65     | 754                          | 833     | 1,587  |
| West Virginia.....           | 127                            | 126     | 253    | 19                            | 0       | 19     | 6                                   | 2       | 8      | 73                           | 61      | 134    |
| North Carolina.....          | 144                            | 316     | 460    | 15                            | 1       | 16     | 68                                  | 45      | 113    | 428                          | 912     | 1,340  |
| South Carolina.....          | 44                             | 95      | 139    |                               |         |        | 42                                  | 96      | 138    | 382                          | 549     | 931    |
| Georgia.....                 | 37                             | 61      | 98     | 7                             | 1       | 8      | 93                                  | 235     | 328    | 487                          | 962     | 1,449  |
| Florida.....                 | 87                             | 83      | 170    | 15                            | 15      | 30     | 0                                   | 0       | 0      | 324                          | 202     | 526    |
| South Central Division:      |                                |         |        |                               |         |        |                                     |         |        |                              |         |        |
| Kentucky.....                | 353                            | 279     | 632    | 40                            | 60      | 100    | 81                                  | 52      | 133    | 529                          | 509     | 1,038  |
| Tennessee.....               | 519                            | 423     | 942    | 99                            | 63      | 162    | 228                                 | 193     | 421    | 1,011                        | 1,022   | 2,033  |
| Alabama.....                 | 335                            | 309     | 644    | 11                            | 1       | 12     | 19                                  | 80      | 99     | 334                          | 365     | 699    |
| Mississippi.....             | 102                            | 116     | 218    | 16                            | 10      | 26     | 71                                  | 93      | 164    | 478                          | 562     | 1,040  |
| Louisiana.....               | 0                              | 4       | 4      |                               |         |        |                                     |         |        | 0                            | 76      | 76     |
| Texas.....                   | 64                             | 170     | 234    | 21                            | 5       | 26     | 54                                  | 28      | 82     | 191                          | 275     | 466    |
| Arkansas.....                | 37                             | 31      | 68     | 13                            | 6       | 19     | 4                                   | 4       | 8      | 140                          | 156     | 296    |
| Oklahoma.....                |                                |         |        |                               |         |        |                                     |         |        |                              |         |        |
| Indian Territory.....        |                                |         |        |                               |         |        |                                     |         |        |                              |         |        |
| North Central Division:      |                                |         |        |                               |         |        |                                     |         |        |                              |         |        |
| Ohio.....                    | 1,397                          | 822     | 2,220  | 358                           | 72      | 430    | 1,330                               | 615     | 1,945  | 377                          | 174     | 551    |
| Indiana.....                 | 2,547                          | 1,947   | 4,494  | 890                           | 538     | 1,428  | 825                                 | 962     | 1,787  | 605                          | 439     | 1,044  |
| Illinois.....                | 666                            | 584     | 1,250  | 425                           | 163     | 588    | 281                                 | 122     | 403    | 712                          | 350     | 1,062  |
| Michigan.....                | 659                            | 594     | 1,253  | 166                           | 98      | 264    | 90                                  | 170     | 260    | 51                           | 36      | 87     |
| Wisconsin.....               | 47                             | 36      | 83     |                               |         |        |                                     |         |        | 39                           | 0       | 39     |
| Minnesota.....               | 107                            | 77      | 184    | 96                            | 1       | 97     | 17                                  | 0       | 17     | 38                           | 10      | 48     |
| Iowa.....                    | 335                            | 917     | 1,512  | 346                           | 70      | 416    | 601                                 | 761     | 1,362  | 326                          | 375     | 701    |
| Missouri.....                | 760                            | 619     | 1,379  | 139                           | 33      | 172    | 168                                 | 197     | 365    | 481                          | 333     | 814    |
| North Dakota.....            | 35                             | 29      | 64     | 52                            | 8       | 60     |                                     |         |        | 21                           | 6       | 27     |
| South Dakota.....            | 34                             | 45      | 79     |                               |         |        |                                     |         |        |                              |         |        |
| Nebraska.....                | 694                            | 616     | 1,340  | 304                           | 252     | 556    | 194                                 | 144     | 338    | 179                          | 259     | 438    |
| Kansas.....                  | 351                            | 256     | 607    | 141                           | 81      | 222    | 33                                  | 11      | 44     | 263                          | 176     | 439    |
| Western Division:            |                                |         |        |                               |         |        |                                     |         |        |                              |         |        |
| Montana.....                 | 3                              | 7       | 10     | 0                             | 4       | 4      |                                     |         |        | 27                           | 39      | 66     |
| Wyoming.....                 | 1                              | 9       | 10     | 1                             | 0       | 1      | 3                                   | 0       | 3      | 21                           | 14      | 35     |
| Colorado.....                | 20                             | 123     | 143    |                               |         |        |                                     |         |        | 7                            | 18      | 25     |
| New Mexico.....              |                                |         |        |                               |         |        |                                     |         |        |                              |         |        |
| Arizona.....                 |                                |         |        |                               |         |        |                                     |         |        |                              |         |        |
| Utah.....                    | 161                            | 196     | 357    | 91                            | 16      | 107    | 181                                 | 95      | 276    | 235                          | 194     | 429    |
| Nevada.....                  |                                |         |        |                               |         |        |                                     |         |        |                              |         |        |
| Idaho.....                   |                                |         |        |                               |         |        |                                     |         |        |                              |         |        |
| Washington.....              |                                |         |        |                               |         |        |                                     |         |        |                              |         |        |
| Oregon.....                  |                                |         |        |                               |         |        |                                     |         |        |                              |         |        |
| California.....              | 11                             | 143     | 154    | 6                             | 4       | 10     | 0                                   | 0       | 0      | 74                           | 35      | 109    |

TABLE 9.—*Summary of statistics of private normal schools.*

## TOTAL ENROLLMENT OF STUDENTS.

| State or Territory.         | Total enrollment in all departments. |         |        | Colored students included in normal department. |         |        | Number of children in model schools. |         |        |
|-----------------------------|--------------------------------------|---------|--------|---|---------|--------|--------------------------------------|---------|--------|
|                             | Male.                                | Female. | Total. | Male.   | Female. | Total. | Male.                                | Female. | Total. |
| United States .....         | 28,578                               | 25,498  | 54,076 | 856   | 1,075   | 1,931  | 1,576                                | 2,152   | 3,728  |
| North Atlantic Division ... | 2,186                                | 1,772   | 3,958  | 85  | 86      | 171    | 231                                  | 325     | 556    |
| South Atlantic Division ... | 3,409                                | 4,970   | 8,379  | 277   | 460     | 737    | 454                                  | 883     | 1,337  |
| South Central Division ...  | 4,838                                | 4,804   | 9,642  | 483   | 521     | 1,004  | 237                                  | 243     | 480    |
| North Central Division ...  | 17,299                               | 13,059  | 30,358 | 11  | 8       | 19     | 474                                  | 549     | 1,023  |
| Western Division .....      | 846                                  | 893     | 1,739  | 0   | 0       | 0      | 180                                  | 152     | 332    |
| North Atlantic Division:    |                                      |         |        |   |         |        |                                      |         |        |
| Maine .....                 | 70                                   | 75      | 145    | 0   | 0       | 0      |                                      |         |        |
| New Hampshire .....         |                                      |         |        |   |         |        |                                      |         |        |
| Vermont .....               | 115                                  | 200     | 315    | 85  | 85      | 170    | 32                                   | 60      | 92     |
| Massachusetts .....         | 0                                    | 75      | 75     |   |         |        |                                      |         |        |
| Rhode Island .....          |                                      |         |        |   |         |        |                                      |         |        |
| Connecticut .....           |                                      |         |        |   |         |        |                                      |         |        |
| New York .....              |                                      |         |        |   |         |        |                                      |         |        |
| New Jersey .....            |                                      |         |        |   |         |        |                                      |         |        |
| Pennsylvania .....          | 2,001                                | 1,422   | 3,423  | 0   | 1       | 1      | 199                                  | 265     | 464    |
| South Atlantic Division:    |                                      |         |        |   |         |        |                                      |         |        |
| Delaware .....              |                                      |         |        |   |         |        |                                      |         |        |
| Maryland .....              | 37                                   | 63      | 100    | 10  | 20      | 30     | 0                                    | 0       | 0      |
| District of Columbia .....  |                                      |         |        |   |         |        |                                      |         |        |
| Virginia .....              | 996                                  | 1,123   | 2,119  | 55  | 63      | 118    | 329                                  | 415     | 744    |
| West Virginia .....         | 210                                  | 204     | 414    | 55  | 72      | 127    |                                      |         |        |
| North Carolina .....        | 658                                  | 1,271   | 1,929  | 108   | 203     | 311    | 15                                   | 29      | 44     |
| South Carolina .....        | 468                                  | 740     | 1,208  | 31  | 50      | 90     |                                      |         |        |
| Georgia .....               | 611                                  | 1,272   | 1,883  | 8   | 37      | 45     | 80                                   | 411     | 491    |
| Florida .....               | 429                                  | 297     | 726    | 10  | 6       | 16     | 30                                   | 28      | 58     |
| South Central Division:     |                                      |         |        |   |         |        |                                      |         |        |
| Kentucky .....              | 1,000                                | 903     | 1,903  | 0   | 0       | 0      | 33                                   | 37      | 70     |
| Tennessee .....             | 1,922                                | 1,636   | 3,558  | 95  | 92      | 187    | 56                                   | 51      | 107    |
| Alabama .....               | 659                                  | 755     | 1,454  | 331   | 265     | 596    | 15                                   | 15      | 30     |
| Mississippi .....           | 672                                  | 776     | 1,448  | 22  | 17      | 39     | 103                                  | 115     | 218    |
| Louisiana .....             | 0                                    | 80      | 80     | 0   | 0       | 0      | 0                                    | 0       | 0      |
| Texas .....                 | 347                                  | 461     | 808    | 13  | 132     | 145    |                                      |         |        |
| Arkansas .....              | 198                                  | 193     | 391    | 22  | 15      | 37     | 30                                   | 25      | 55     |
| Oklahoma .....              |                                      |         |        |   |         |        |                                      |         |        |
| Indian Territory .....      |                                      |         |        |   |         |        |                                      |         |        |
| North Central Division:     |                                      |         |        |   |         |        |                                      |         |        |
| Ohio .....                  | 3,372                                | 1,683   | 5,055  | 2   | 3       | 5      | 37                                   | 70      | 107    |
| Indiana .....               | 4,877                                | 3,876   | 8,753  | 2   | 2       | 4      | 100                                  | 125     | 225    |
| Illinois .....              | 2,089                                | 1,214   | 3,303  | 6   | 2       | 8      | 48                                   | 62      | 110    |
| Michigan .....              | 946                                  | 898     | 1,844  | 0   | 0       | 0      | 63                                   | 86      | 149    |
| Wisconsin .....             | 86                                   | 36      | 122    |   |         |        | 111                                  | 99      | 210    |
| Minnesota .....             | 259                                  | 87      | 346    | 0   | 0       | 0      | 65                                   | 60      | 125    |
| Iowa .....                  | 1,902                                | 2,089   | 3,991  | 1   | 0       | 1      | 21                                   | 27      | 48     |
| Missouri .....              | 1,490                                | 1,240   | 2,730  |   |         |        | 3                                    | 3       | 6      |
| North Dakota .....          | 108                                  | 43      | 151    | 0   | 0       | 0      | 0                                    | 0       | 0      |
| South Dakota .....          | 34                                   | 45      | 79     | 0   | 0       | 0      | 0                                    | 0       | 0      |
| Nebraska .....              | 1,347                                | 1,325   | 2,672  | 0   | 1       | 1      | 26                                   | 17      | 43     |
| Kansas .....                | 789                                  | 523     | 1,312  |   |         |        |                                      |         |        |
| Western Division:           |                                      |         |        |   |         |        |                                      |         |        |
| Montana .....               | 36                                   | 44      | 80     |   |         |        | 27                                   | 39      | 66     |
| Wyoming .....               | 26                                   | 23      | 49     | 0   | 0       | 0      | 7                                    | 8       | 15     |
| Colorado .....              | 27                                   | 141     | 168    |   |         |        |                                      |         |        |
| New Mexico .....            |                                      |         |        |   |         |        |                                      |         |        |
| Arizona .....               |                                      |         |        |   |         |        |                                      |         |        |
| Utah .....                  | 668                                  | 501     | 1,169  |   |         |        | 146                                  | 105     | 251    |
| Nevada .....                |                                      |         |        |   |         |        |                                      |         |        |
| Idaho .....                 |                                      |         |        |   |         |        |                                      |         |        |
| Washington .....            |                                      |         |        |   |         |        |                                      |         |        |
| Oregon .....                |                                      |         |        |   |         |        |                                      |         |        |
| California .....            | 89                                   | 184     | 273    | 0   | 0       | 0      | 0                                    | 0       | 0      |

TABLE 10.—*Summary of statistics of private normal schools.*

## NUMBER OF NORMAL AND OTHER GRADUATES.

| State or Territory.         | Number of normal graduates. |         |        | Graduates in business courses. |         |        | Graduates in other courses. |         |        |
|-----------------------------|-----------------------------|---------|--------|--------------------------------|---------|--------|-----------------------------|---------|--------|
|                             | Male.                       | Female. | Total. | Male.                          | Female. | Total. | Male.                       | Female. | Total. |
| United States.....          | 1, 612                      | 1, 482  | 3, 094 | 1, 379                         | 636     | 2, 015 | 738                         | 515     | 1, 253 |
| North Atlantic Division.... | 198                         | 224     | 422    | 23                             | 17      | 40     | 11                          | 3       | 14     |
| South Atlantic Division.... | 80                          | 140     | 220    | 26                             | 3       | 29     | 47                          | 83      | 130    |
| South Central Division....  | 239                         | 216     | 455    | 101                            | 57      | 158    | 65                          | 59      | 124    |
| North Central Division....  | 1, 080                      | 810     | 1, 890 | 1, 221                         | 559     | 1, 780 | 614                         | 369     | 983    |
| Western Division.....       | 15                          | 92      | 107    | 8                              | 0       | 8      | 1                           | 1       | 2      |
| North Atlantic Division:    |                             |         |        |                                |         |        |                             |         |        |
| Maine.....                  | 4                           | 3       | 7      |                                |         |        |                             |         |        |
| New Hampshire.....          |                             |         |        |                                |         |        |                             |         |        |
| Vermont.....                | 9                           | 4       | 13     |                                |         |        |                             |         |        |
| Massachusetts.....          | 0                           | 8       | 8      |                                |         |        |                             |         |        |
| Rhode Island.....           |                             |         |        |                                |         |        |                             |         |        |
| Connecticut.....            |                             |         |        |                                |         |        |                             |         |        |
| New York.....               |                             |         |        |                                |         |        |                             |         |        |
| New Jersey.....             |                             |         |        |                                |         |        |                             |         |        |
| Pennsylvania.....           | 185                         | 209     | 394    | 23                             | 17      | 40     | 11                          | 3       | 14     |
| South Atlantic Division:    |                             |         |        |                                |         |        |                             |         |        |
| Delaware.....               |                             |         |        |                                |         |        |                             |         |        |
| Maryland.....               |                             |         |        | 0                              | 2       | 2      | 0                           | 3       | 3      |
| District of Columbia.....   |                             |         |        |                                |         |        |                             |         |        |
| Virginia.....               | 43                          | 53      | 96     | 12                             | 0       | 12     | 16                          | 10      | 26     |
| West Virginia.....          | 8                           | 6       | 14     | 6                              | 0       | 6      | 5                           | 0       | 5      |
| North Carolina.....         | 7                           | 32      | 39     | 0                              | 0       | 0      | 0                           | 15      | 15     |
| South Carolina.....         | 8                           | 32      | 40     | 0                              | 0       | 0      | 0                           | 0       | 0      |
| Georgia.....                | 5                           | 10      | 15     | 7                              | 1       | 8      | 26                          | 55      | 81     |
| Florida.....                | 9                           | 7       | 16     | 1                              | 0       | 1      |                             |         |        |
| South Central Division:     |                             |         |        |                                |         |        |                             |         |        |
| Kentucky.....               | 58                          | 51      | 109    | 42                             | 34      | 76     | 17                          | 14      | 31     |
| Tennessee.....              | 66                          | 39      | 105    | 40                             | 10      | 50     | 34                          | 31      | 65     |
| Alabama.....                | 93                          | 75      | 168    | 0                              | 11      | 11     | 3                           | 3       | 6      |
| Mississippi.....            | 18                          | 15      | 33     | 12                             | 0       | 12     | 10                          | 2       | 12     |
| Louisiana.....              | 0                           | 4       | 4      | 0                              | 0       | 0      | 0                           | 7       | 7      |
| Texas.....                  | 4                           | 32      | 36     | 7                              | 2       | 9      | 1                           | 2       | 3      |
| Arkansas.....               |                             |         |        |                                |         |        |                             |         |        |
| Oklahoma.....               |                             |         |        |                                |         |        |                             |         |        |
| Indian Territory.....       |                             |         |        |                                |         |        |                             |         |        |
| North Central Division:     |                             |         |        |                                |         |        |                             |         |        |
| Ohio.....                   | 183                         | 68      | 251    | 183                            | 31      | 214    | 168                         | 34      | 202    |
| Indiana.....                | 461                         | 382     | 843    | 492                            | 316     | 808    | 200                         | 117     | 317    |
| Illinois.....               | 83                          | 43      | 126    | 65                             | 52      | 117    | 42                          | 32      | 74     |
| Michigan.....               | 42                          | 76      | 118    | 89                             | 55      | 144    | 46                          | 41      | 87     |
| Wisconsin.....              | 4                           | 8       | 12     | 1                              | 0       | 1      |                             |         |        |
| Minnesota.....              | 15                          | 22      | 37     | 17                             | 0       | 17     | 0                           | 0       | 0      |
| Iowa.....                   | 95                          | 75      | 170    | 88                             | 18      | 106    | 65                          | 79      | 144    |
| Missouri.....               | 40                          | 34      | 74     | 105                            | 21      | 126    | 55                          | 29      | 84     |
| North Dakota.....           | 0                           | 0       | 0      | 2                              | 0       | 2      | 0                           | 0       | 0      |
| South Dakota.....           | 2                           | 2       | 4      | 0                              | 0       | 0      | 0                           | 0       | 0      |
| Nebraska.....               | 132                         | 95      | 227    | 119                            | 37      | 156    | 25                          | 25      | 50     |
| Kansas.....                 | 23                          | 5       | 28     | 60                             | 29      | 89     | 13                          | 12      | 25     |
| Western Division:           |                             |         |        |                                |         |        |                             |         |        |
| Montana.....                |                             |         |        |                                |         |        |                             |         |        |
| Wyoming.....                | 0                           | 0       | 0      | 0                              | 0       | 0      | 0                           | 0       | 0      |
| Colorado.....               | 0                           | 21      | 21     |                                |         |        |                             |         |        |
| New Mexico.....             |                             |         |        |                                |         |        |                             |         |        |
| Arizona.....                |                             |         |        |                                |         |        |                             |         |        |
| Utah.....                   | 12                          | 8       | 20     | 8                              | 0       | 8      | 1                           | 1       | 2      |
| Nevada.....                 |                             |         |        |                                |         |        |                             |         |        |
| Idaho.....                  |                             |         |        |                                |         |        |                             |         |        |
| Washington.....             |                             |         |        |                                |         |        |                             |         |        |
| Oregon.....                 |                             |         |        |                                |         |        |                             |         |        |
| California.....             | 3                           | 63      | 66     | 0                              | 0       | 0      | 0                           | 0       | 0      |



TABLE 11.—*Summary of statistics of private normal schools.*

## INCOME FROM VARIOUS SOURCES.

| State or Territory.          | Amount appropriated by States, counties, or cities for support for 1894-95. | Amount received from tuition and other fees. | Amount received from productive funds. | Amount received from other sources. | Total income for the year 1894-95. |
|------------------------------|---|--|--|-------------------------------------|------------------------------------|
| United States .....          | \$57,399  | \$626,768                                    | \$40,404                               | \$386,095                           | \$1,110,666                        |
| North Atlantic Division..... | 35,300  | 114,489                                      | 612                                    | 64,790                              | 215,191                            |
| South Atlantic Division..... | 4,831   | 35,213                                       | 28,203                                 | 150,357                             | 216,604                            |
| South Central Division.....  | 12,768  | 73,209                                       | 5,768                                  | 103,507                             | 202,243                            |
| North Central Division.....  | 4,500   | 373,680                                      | 7,393                                  | 35,941                              | 420,914                            |
| Western Division .....       |   | 25,786                                       | 368                                    | 29,500                              | 55,654                             |
| North Atlantic Division:     |   |  |  |                                     |                                    |
| Maine.....                   | 600   |  |  |                                     | 600                                |
| New Hampshire.....           |   |  |  |                                     |                                    |
| Vermont.....                 | 4,700   |  |  |                                     | 4,700                              |
| Massachusetts.....           |   | 2,200  |  | 14,752                              | 16,952                             |
| Rhode Island.....            |   |  |  |                                     |                                    |
| Connecticut.....             |   |  |  |                                     |                                    |
| New York.....                |   |  |  |                                     |                                    |
| New Jersey.....              |   |  |  |                                     |                                    |
| Pennsylvania.....            | 30,000  | 112,289                                      | 612                                    | 50,033                              | 192,929                            |
| South Atlantic Division:     |   |  |  |                                     |                                    |
| Delaware.....                |   |  |  |                                     |                                    |
| Maryland.....                | 2,000   | 749  | 360                                    |                                     | 3,109                              |
| District of Columbia.....    |   |  |  |                                     |                                    |
| Virginia.....                |   | 8,804  | 22,203                                 | 105,048                             | 136,055                            |
| West Virginia.....           |   | 2,505  |  |                                     | 2,505                              |
| North Carolina.....          | 263   | 8,813  | 900                                    | 5,675                               | 15,651                             |
| South Carolina.....          | 150   | 3,732  | 1,006                                  | 10,464                              | 15,346                             |
| Georgia.....                 | 1,818   | 8,110  | 1,800                                  | 29,170                              | 40,898                             |
| Florida.....                 | 600   | 2,500  | 0                                      |                                     | 3,100                              |
| South Central Division:      |   |  |  |                                     |                                    |
| Kentucky.....                | 1,553   | 31,957                                       | 250                                    | 6,000                               | 39,760                             |
| Tennessee.....               | 1,700   | 19,591                                       |  | 14,485                              | 35,776                             |
| Alabama.....                 | 5,500   | 1,809  | 243                                    | 61,620                              | 72,172                             |
| Mississippi.....             | 3,015   | 8,225  |  | 15,300                              | 26,540                             |
| Louisiana.....               |   | 6,000  |  |                                     | 6,000                              |
| Texas.....                   | 1,000   | 6,314  | 3,175                                  | 2,408                               | 12,897                             |
| Arkansas.....                |   | 4,304  | 2,160                                  | 2,604                               | 9,068                              |
| Oklahoma.....                |   |  |  |                                     |                                    |
| Indian Territory.....        |   |  |  |                                     |                                    |
| North Central Division:      |   |  |  |                                     |                                    |
| Ohio.....                    | 3,200   | 53,761                                       | 270                                    | 4,170                               | 61,401                             |
| Indiana.....                 | 800   | 151,766                                      | 350                                    | 225                                 | 153,141                            |
| Illinois.....                |   | 25,525                                       | 1,093                                  | 1,220                               | 27,813                             |
| Michigan.....                | 500   | 52,650                                       |  |                                     | 53,150                             |
| Wisconsin.....               |   |  | 5,375                                  | 3,503                               | 8,878                              |
| Minnesota.....               |   | 2,500  |  | 3,500                               | 6,000                              |
| Iowa.....                    |   | 39,900                                       |  | 2,350                               | 42,250                             |
| Missouri.....                |   | 33,340                                       | 300                                    | 4,600                               | 38,300                             |
| North Dakota.....            |   | 3,000  |  |                                     | 3,000                              |
| South Dakota.....            |   | 1,138  |  | 3,677                               | 4,815                              |
| Nebraska.....                |   | 500  |  | 12,636                              | 13,136                             |
| Kansas.....                  |   | 9,000  |  |                                     | 9,000                              |
| Western Division:            |   |  |  |                                     |                                    |
| Montana.....                 | 0   | 1,320  | 0                                      | 0                                   | 1,320                              |
| Wyoming.....                 |   |  |  |                                     |                                    |
| Colorado.....                |   |  |  |                                     |                                    |
| New Mexico.....              |   |  |  |                                     |                                    |
| Arizona.....                 |   |  |  |                                     |                                    |
| Utah.....                    |   | 12,012                                       | 368                                    | 27,500                              | 39,880                             |
| Nevada.....                  |   |  |  |                                     |                                    |
| Idaho.....                   |   |  |  |                                     |                                    |
| Washington.....              |   |  |  |                                     |                                    |
| Oregon.....                  |   |  |  |                                     |                                    |
| California.....              |   | 12,454                                       |  | 2,000                               | 14,454                             |

TABLE 12.—*Summary of statistics of private normal schools.*

## VALUE OF BUILDINGS AND OTHER PROPERTY.

| State or Territory.          | Number<br>schools<br>reporting<br>libraries. | Volumes in<br>libraries. | Estimated<br>value of<br>libraries. | Value of<br>buildings,<br>grounds,<br>apparatus,<br>etc. | Value of<br>endow-<br>ments and<br>other<br>property. | Value of<br>benefac-<br>tions re-<br>ceived—<br>1894-95. |
|------------------------------|--|--------------------------|-------------------------------------|--|---|--|
| United States.....           | 147  | 180,873                  | \$148,144                           | \$5,905,421  | \$839,243   | \$254,001  |
| North Atlantic Division..... | 8  | 24,390                   | 25,450                              | 973,568  | 67,400  | 2,700  |
| South Atlantic Division..... | 23   | 20,808                   | 16,670                              | 1,313,550  | 477,975   | 92,013   |
| South Central Division.....  | 35   | 37,200                   | 27,555                              | 840,068  | 81,993  | 58,398   |
| North Central Division.....  | 69   | 93,675                   | 70,044                              | 2,544,405  | 199,875   | 69,390   |
| Western Division.....        | 7  | 4,800                    | 8,425                               | 233,800  | 12,000  | 31,500   |
| North Atlantic Division:     |  |                          |                                     |  |   |  |
| Maine.....                   |  | 0                        |                                     | 20,000   |   |  |
| New Hampshire.....           |  |                          |                                     |  |   |  |
| Vermont.....                 |  |                          |                                     | 15,000   |   |  |
| Massachusetts.....           | 1  | 5,836                    | 5,000                               | 45,000   |   |  |
| Rhode Island.....            |  |                          |                                     |  |   |  |
| Connecticut.....             |  |                          |                                     |  |   |  |
| New York.....                |  |                          |                                     |  |   |  |
| New Jersey.....              |  |                          |                                     |  |   |  |
| Pennsylvania.....            | 7  | 18,554                   | 20,450                              | 893,598  | 67,400  | 2,700  |
| South Atlantic Division:     |  |                          |                                     |  |   |  |
| Delaware.....                |  |                          |                                     |  |   |  |
| Maryland.....                | 2  | 500                      | 2,200                               | 23,000   | 6,000   |  |
| District of Columbia.....    |  |                          |                                     |  |   |  |
| Virginia.....                | 5  | 9,698                    | 6,550                               | 701,000  | 444,685   | 80,392   |
| West Virginia.....           | 1  | 250                      | 400                                 | 5,000  |   |  |
| North Carolina.....          | 5  | 800                      | 2,545                               | 267,700  | 5,000   | 7,210  |
| South Carolina.....          | 4  | 2,200                    | 550                                 | 64,300   | 22,850  | 1,000  |
| Georgia.....                 | 8  | 5,960                    | 3,750                               | 211,550  | 40  | 3,411  |
| Florida.....                 | 3  | 1,400                    | 675                                 | 41,000   |   |  |
| South Central Division:      |  |                          |                                     |  |   |  |
| Kentucky.....                | 8  | 3,175                    | 2,870                               | 87,550   | 4,000   | 200  |
| Tennessee.....               | 9  | 10,125                   | 7,225                               | 255,018  |   | 1,223  |
| Alabama.....                 | 5  | 14,100                   | 8,590                               | 220,000  | 9,993   | 48,919   |
| Mississippi.....             | 5  | 4,800                    | 4,110                               | 151,500  | 2,500   | 5,500  |
| Louisiana.....               | 1  | 1,000                    | 1,000                               | 20,000   |   |  |
| Texas.....                   | 4  | 2,100                    | 2,350                               | 79,000   | 30,000  | 1,762  |
| Arkansas.....                | 3  | 1,900                    | 1,500                               | 37,000   | 35,500  | 794  |
| Oklahoma.....                |  |                          |                                     |  |   |  |
| Indian Territory.....        |  |                          |                                     |  |   |  |
| North Central Division:      |  |                          |                                     |  |   |  |
| Ohio.....                    | 8  | 20,220                   | 9,830                               | 224,000  | 32,500  | 25,000   |
| Indiana.....                 | 10   | 13,175                   | 23,285                              | 643,503  | 15,000  |  |
| Illinois.....                | 7  | 25,600                   | 4,150                               | 533,000  | 25,000  | 23,500   |
| Michigan.....                | 6  | 4,900                    | 6,600                               | 65,800   |   |  |
| Wisconsin.....               | 1  | 1,200                    | 2,000                               | 3,000  | 110,000   | 2,625  |
| Minnesota.....               | 3  | 1,050                    | 1,000                               | 76,500   | 500   |  |
| Iowa.....                    | 15   | 6,525                    | 4,742                               | 286,305  | 875   | 1,000  |
| Missouri.....                | 9  | 6,300                    | 7,125                               | 234,500  | 14,000  | 2,000  |
| North Dakota.....            |  |                          |                                     |  |   |  |
| South Dakota.....            |  |                          |                                     | 18,000   |   |  |
| Nebraska.....                | 5  | 7,100                    | 4,512                               | 326,800  | 2,000   | 15,165   |
| Kansas.....                  | 5  | 7,600                    | 6,800                               | 133,000  |   | 30   |
| Western Division:            |  |                          |                                     |  |   |  |
| Montana.....                 | 1  | 350                      | 675                                 | 8,000  | 12,000  |  |
| Wyoming.....                 |  |                          |                                     |  |   |  |
| Colorado.....                | 1  | 150                      | 150                                 | 300  |   |  |
| New Mexico.....              |  |                          |                                     |  |   |  |
| Arizona.....                 |  |                          |                                     |  |   |  |
| Utah.....                    | 2  | 4,300                    | 6,250                               | 155,000  |   | 3,500  |
| Nevada.....                  |  |                          |                                     |  |   |  |
| Idaho.....                   |  |                          |                                     |  |   |  |
| Washington.....              |  |                          |                                     |  |   |  |
| Oregon.....                  |  |                          |                                     |  |   |  |
| California.....              | 3  | 733                      | 1,350                               | 70,500   | 0   | 28,000   |

TABLE 13.—Percentage of male and female students and percentage of graduates to total number in normal course.

## PUBLIC AND PRIVATE NORMAL SCHOOLS.

| State or Territory.          | In public normal schools. |         |            | In private normal schools. |         |            |
|------------------------------|---------------------------|---------|------------|----------------------------|---------|------------|
|                              | Male.                     | Female. | Graduates. | Male.                      | Female. | Graduates. |
| United States.....           | 28.25                     | 71.75   | 15.14      | 51.79                      | 48.21   | 14.11      |
| North Atlantic Division..... | 22.09                     | 77.91   | 18.90      | 53.16                      | 46.84   | 16.34      |
| South Atlantic Division..... | 26.44                     | 73.56   | 11.20      | 40.30                      | 59.70   | 13.41      |
| South Central Division.....  | 41.55                     | 58.45   | 11.96      | 51.42                      | 48.58   | 16.59      |
| North Central Division.....  | 33.24                     | 66.76   | 12.34      | 54.00                      | 46.00   | 13.23      |
| Western Division.....        | 21.11                     | 78.89   | 18.32      | 29.08                      | 70.92   | 15.88      |
| North Atlantic Division:     |                           |         |            |                            |         |            |
| Maine.....                   | 20.12                     | 79.88   | 14.30      | 48.28                      | 51.72   | 4.83       |
| New Hampshire.....           | 1.11                      | 98.89   | 21.11      | .....                      | .....   | .....      |
| Vermont.....                 | 14.39                     | 85.61   | 21.75      | 38.10                      | 61.90   | 4.13       |
| Massachusetts.....           | 5.56                      | 94.44   | 16.58      | 0                          | 100.00  | 10.67      |
| Rhode Island.....            | 1.02                      | 98.98   | 7.14       | .....                      | .....   | .....      |
| Connecticut.....             | 1.83                      | 98.17   | 33.74      | .....                      | .....   | .....      |
| New York.....                | 18.08                     | 81.92   | 18.66      | .....                      | .....   | .....      |
| New Jersey.....              | 16.38                     | 83.62   | 24.64      | .....                      | .....   | .....      |
| Pennsylvania.....            | 35.54                     | 64.46   | 18.32      | 57.76                      | 42.24   | 19.24      |
| South Atlantic Division:     |                           |         |            |                            |         |            |
| Delaware.....                | 0                         | 100.00  | 100.00     | .....                      | .....   | .....      |
| Maryland.....                | 4.31                      | 95.69   | 14.97      | 37.50                      | 62.50   | .....      |
| District of Columbia.....    | 7.79                      | 92.21   | 94.81      | .....                      | .....   | .....      |
| Virginia.....                | 13.05                     | 86.95   | 14.22      | 43.42                      | 56.58   | 21.05      |
| West Virginia.....           | 54.04                     | 45.96   | 5.80       | 50.20                      | 49.80   | 5.53       |
| North Carolina.....          | 19.68                     | 80.32   | 5.94       | 31.30                      | 68.70   | 8.48       |
| South Carolina.....          | 0                         | 100.00  | 11.86      | 31.65                      | 68.35   | 28.78      |
| Georgia.....                 | 16.97                     | 83.03   | 6.06       | 37.76                      | 62.24   | 15.31      |
| Florida.....                 | 45.59                     | 54.41   | 11.76      | 51.18                      | 48.82   | 9.41       |
| South Central Division:      |                           |         |            |                            |         |            |
| Kentucky.....                | 14.04                     | 85.96   | 37.72      | 55.85                      | 44.15   | 17.25      |
| Tennessee.....               | 37.99                     | 62.01   | 28.35      | 44.90                      | 55.10   | 11.15      |
| Alabama.....                 | 45.83                     | 54.17   | 10.00      | 52.02                      | 47.98   | 26.09      |
| Mississippi.....             | 50.74                     | 49.26   | 8.09       | 46.79                      | 53.21   | 15.14      |
| Louisiana.....               | 23.28                     | 76.72   | 14.66      | 0                          | 100.00  | 100.00     |
| Texas.....                   | 40.20                     | 59.80   | 3.07       | 27.35                      | 72.65   | 15.38      |
| Arkansas.....                | 61.54                     | 38.46   | 7.98       | 54.41                      | 45.59   | .....      |
| Oklahoma.....                | 32.26                     | 67.74   | .....      | .....                      | .....   | .....      |
| Indian Territory.....        | .....                     | .....   | .....      | .....                      | .....   | .....      |
| North Central Division:      |                           |         |            |                            |         |            |
| Ohio.....                    | 6.75                      | 93.25   | 50.00      | 61.39                      | 38.61   | 11.79      |
| Indiana.....                 | 41.47                     | 58.53   | 7.73       | 56.68                      | 43.32   | 18.76      |
| Illinois.....                | 36.87                     | 63.13   | 2.86       | 49.83                      | 50.17   | 10.82      |
| Michigan.....                | 22.90                     | 77.10   | 22.15      | 52.59                      | 47.41   | 9.42       |
| Wisconsin.....               | 29.42                     | 70.58   | 11.96      | 56.63                      | 43.37   | 14.46      |
| Minnesota.....               | 21.05                     | 78.95   | 20.82      | 58.15                      | 41.85   | 20.11      |
| Iowa.....                    | 33.06                     | 66.94   | 9.24       | 39.35                      | 60.65   | 11.24      |
| Missouri.....                | 43.40                     | 56.60   | 8.30       | 55.11                      | 44.89   | 5.37       |
| North Dakota.....            | 35.84                     | 64.16   | 8.87       | 54.69                      | 45.31   | .....      |
| South Dakota.....            | 29.90                     | 70.10   | 11.60      | 43.04                      | 56.96   | 5.06       |
| Nebraska.....                | 17.39                     | 82.61   | 100.00     | 51.79                      | 48.21   | 16.94      |
| Kansas.....                  | 37.86                     | 62.14   | 7.14       | 57.83                      | 42.17   | 4.61       |
| Western Division:            |                           |         |            |                            |         |            |
| Montana.....                 | .....                     | .....   | .....      | 30.00                      | 70.00   | .....      |
| Wyoming.....                 | .....                     | .....   | .....      | 10.00                      | 90.00   | .....      |
| Colorado.....                | 23.69                     | 76.31   | .....      | 13.99                      | 86.01   | 14.69      |
| New Mexico.....              | 0                         | 100.00  | 2.86       | .....                      | .....   | .....      |
| Arizona.....                 | 49.46                     | 50.54   | 7.53       | .....                      | .....   | .....      |
| Utah.....                    | .....                     | .....   | .....      | 45.10                      | 54.90   | 5.60       |
| Nevada.....                  | .....                     | .....   | .....      | .....                      | .....   | .....      |
| Idaho.....                   | 46.99                     | 53.01   | .....      | .....                      | .....   | .....      |
| Washington.....              | 34.75                     | 65.25   | 3.39       | .....                      | .....   | .....      |
| Oregon.....                  | 35.65                     | 64.35   | 18.11      | .....                      | .....   | .....      |
| California.....              | 10.26                     | 89.74   | 29.08      | 7.14                       | 92.86   | 42.86      |

TABLE 14.—*Normal students in universities and colleges and public and private high schools.*

## INSTITUTIONS AND STUDENTS.

| State or Territory.          | In universities and colleges. |           | In public high schools. |       |         |        | In private high schools. |       |         |        | Grand total. |
|------------------------------|-------------------------------|-----------|-------------------------|-------|---------|--------|--------------------------|-------|---------|--------|--------------|
|                              | Institutions.                 | Students. | Schools.                | Male. | Female. | Total. | Schools.                 | Male. | Female. | Total. |              |
| United States .....          | 192                           | 6,402     | 433                     | 2,007 | 4,802   | 6,809  | 458                      | 3,900 | 5,224   | 9,124  | 22,335       |
| North Atlantic Division..... | 14                            | 251       | 126                     | 447   | 1,869   | 2,316  | 100                      | 698   | 1,300   | 1,998  | 4,565        |
| South Atlantic Division..... | 28                            | 1,230     | 50                      | 150   | 419     | 569    | 76                       | 511   | 785     | 1,296  | 3,095        |
| South Central Division.....  | 46                            | 1,398     | 98                      | 648   | 677     | 1,325  | 150                      | 1,336 | 1,278   | 2,614  | 5,337        |
| North Central Division.....  | 82                            | 2,641     | 143                     | 722   | 1,743   | 2,465  | 99                       | 1,148 | 1,534   | 2,682  | 7,788        |
| Western Division.....        | 22                            | 882       | 16                      | 40    | 94      | 134    | 33                       | 207   | 327     | 534    | 1,550        |
| North Atlantic Division:     |                               |           |                         |       |         |        |                          |       |         |        |              |
| Maine.....                   | 1                             | 8         | 4                       | 11    | 17      | 28     | 8                        | 37    | 146     | 183    | 219          |
| New Hampshire.....           |                               |           | 1                       | 0     | 4       | 4      | 4                        | 0     | 32      | 32     | 36           |
| Vermont.....                 |                               |           | 2                       | 6     | 12      | 18     | 5                        | 11    | 36      | 47     | 65           |
| Massachusetts.....           | 2                             | 21        | 1                       | 0     | 2       | 2      | 2                        | 0     | 18      | 18     | 41           |
| Rhode Island.....            | 1                             |           |                         |       |         |        | 1                        | 0     | 5       | 5      | 5            |
| Connecticut.....             |                               |           | 3                       | 0     | 172     | 172    | 3                        | 2     | 27      | 29     | 201          |
| New York.....                | 3                             | 81        | 84                      | 376   | 1,081   | 1,457  | 33                       | 145   | 422     | 567    | 2,105        |
| New Jersey.....              |                               |           | 9                       | 5     | 256     | 261    | 6                        | 0     | 35      | 35     | 296          |
| Pennsylvania.....            | 7                             | 141       | 22                      | 49    | 325     | 374    | 38                       | 503   | 579     | 1,082  | 1,597        |
| South Atlantic Division:     |                               |           |                         |       |         |        |                          |       |         |        |              |
| Delaware.....                |                               |           | 1                       | 3     | 8       | 11     | 1                        | 0     | 5       | 5      | 16           |
| Maryland.....                |                               |           | 6                       | 3     | 147     | 150    | 2                        | 2     | 8       | 10     | 160          |
| District of Columbia.....    | 2                             | 193       |                         |       |         |        |                          |       |         |        | 193          |
| Virginia.....                | 6                             | 140       | 16                      | 39    | 107     | 146    | 14                       | 117   | 206     | 323    | 609          |
| West Virginia.....           | 2                             | 41        | 2                       | 15    | 22      | 37     | 4                        | 47    | 50      | 97     | 175          |
| North Carolina.....          | 5                             | 342       | 3                       | 18    | 12      | 30     | 30                       | 199   | 243     | 442    | 814          |
| South Carolina.....          | 5                             | 179       | 1                       | 1     | 5       | 6      | 8                        | 35    | 123     | 158    | 343          |
| Georgia.....                 | 7                             | 332       | 14                      | 40    | 56      | 96     | 11                       | 98    | 119     | 217    | 645          |
| Florida.....                 | 1                             | 3         | 7                       | 31    | 62      | 93     | 6                        | 13    | 31      | 44     | 140          |
| South Central Division:      |                               |           |                         |       |         |        |                          |       |         |        |              |
| Kentucky.....                | 9                             | 202       | 10                      | 82    | 84      | 166    | 24                       | 355   | 297     | 652    | 1,020        |
| Tennessee.....               | 16                            | 527       | 12                      | 44    | 46      | 90     | 31                       | 241   | 254     | 495    | 1,112        |
| Alabama.....                 | 3                             | 63        | 8                       | 52    | 42      | 94     | 20                       | 105   | 93      | 198    | 355          |
| Mississippi.....             | 5                             | 235       | 21                      | 150   | 192     | 348    | 26                       | 251   | 245     | 496    | 1,079        |
| Louisiana.....               | 2                             | 51        | 2                       | 4     | 6       | 10     | 6                        | 6     | 42      | 48     | 109          |
| Texas.....                   | 7                             | 237       | 32                      | 133   | 145     | 278    | 25                       | 205   | 200     | 405    | 920          |
| Arkansas.....                | 3                             | 64        | 12                      | 176   | 160     | 336    | 16                       | 172   | 142     | 314    | 714          |
| Oklahoma.....                |                               |           |                         |       |         |        | 1                        | 0     | 5       | 5      | 5            |
| Indian Territory.....        | 1                             | 19        | 1                       | 1     | 2       | 3      | 1                        | 1     | 0       | 1      | 23           |
| North Central Division:      |                               |           |                         |       |         |        |                          |       |         |        |              |
| Ohio.....                    | 13                            | 641       | 32                      | 117   | 181     | 298    | 14                       | 189   | 187     | 376    | 1,315        |
| Indiana.....                 | 4                             | 195       | 16                      | 119   | 115     | 234    | 9                        | 196   | 179     | 375    | 804          |
| Illinois.....                | 12                            | 291       | 14                      | 96    | 148     | 244    | 16                       | 126   | 257     | 383    | 918          |
| Michigan.....                | 6                             | 105       | 15                      | 50    | 140     | 190    | 1                        | 31    | 29      | 60     | 355          |
| Wisconsin.....               | 2                             | 14        | 7                       | 25    | 133     | 158    | 5                        | 131   | 78      | 209    | 381          |
| Minnesota.....               | 3                             | 78        | 5                       | 68    | 38      | 106    | 4                        | 26    | 42      | 68     | 252          |
| Iowa.....                    | 11                            | 385       | 18                      | 54    | 171     | 225    | 13                       | 151   | 308     | 459    | 1,069        |
| Missouri.....                | 9                             | 310       | 19                      | 124   | 689     | 813    | 18                       | 153   | 190     | 343    | 1,466        |
| North Dakota.....            | 2                             | 20        | 3                       | 5     | 22      | 27     |                          |       |         |        | 47           |
| South Dakota.....            | 4                             | 125       | 2                       | 20    | 33      | 53     | 4                        | 49    | 47      | 96     | 274          |
| Nebraska.....                | 6                             | 195       | 7                       | 41    | 50      | 91     | 5                        | 14    | 48      | 62     | 348          |
| Kansas.....                  | 10                            | 282       | 5                       | 3     | 23      | 26     | 10                       | 82    | 169     | 251    | 559          |
| Western Division:            |                               |           |                         |       |         |        |                          |       |         |        |              |
| Montana.....                 |                               |           | 2                       | 4     | 10      | 14     | 1                        | 0     | 3       | 3      | 17           |
| Wyoming.....                 | 1                             | 20        |                         |       |         |        | 1                        | 0     | 4       | 4      | 24           |
| Colorado.....                | 1                             |           | 3                       | 14    | 14      | 28     | 2                        | 0     | 7       | 7      | 35           |
| New Mexico.....              | 1                             | 4         |                         |       |         |        | 3                        | 4     | 6       | 10     | 14           |
| Arizona.....                 |                               |           |                         |       |         |        |                          |       |         |        |              |
| Utah.....                    | 2                             | 177       |                         |       |         |        | 6                        | 171   | 188     | 359    | 536          |
| Nevada.....                  | 1                             | 67        | 2                       | 3     | 9       | 12     |                          |       |         |        | 79           |
| Idaho.....                   |                               |           | 1                       | 1     | 5       | 6      | 1                        | 1     | 3       | 4      | 10           |
| Washington.....              | 6                             | 198       | 1                       | 0     | 7       | 7      | 4                        | 10    | 20      | 30     | 235          |
| Oregon.....                  | 2                             | 47        |                         |       |         |        | 6                        | 11    | 45      | 56     | 103          |
| California.....              | 8                             | 369       | 7                       | 18    | 49      | 67     | 9                        | 10    | 51      | 61     | 497          |



TABLE 15.—*Distribution of students pursuing teachers' training courses in various institutions.*

## TOTAL NUMBER OF NORMAL STUDENTS.

| State or Territory.        | In public normal schools. | In private normal schools. | In universities and colleges. | In public high schools. | In private high schools. | Total normal students. |
|----------------------------|---------------------------|----------------------------|-------------------------------|-------------------------|--------------------------|------------------------|
| United States.....         | 36,276                    | 21,927                     | 6,402                         | 6,809                   | 9,124                    | 80,538                 |
| North Atlantic Division... | 14,003                    | 2,583                      | 251                           | 2,316                   | 1,998                    | 21,151                 |
| South Atlantic Division... | 3,097                     | 1,640                      | 1,230                         | 569                     | 1,296                    | 7,832                  |
| South Central Division...  | 3,059                     | 2,742                      | 1,398                         | 1,325                   | 2,614                    | 11,138                 |
| North Central Division...  | 13,710                    | 14,288                     | 2,641                         | 2,465                   | 2,682                    | 35,786                 |
| Western Division.....      | 2,407                     | 674                        | 882                           | 134                     | 534                      | 4,631                  |
| North Atlantic Division:   |                           |                            |                               |                         |                          |                        |
| Maine.....                 | 860                       | 145                        | 8                             | 28                      | 183                      | 1,224                  |
| New Hampshire.....         | 90                        |                            |                               | 4                       | 32                       | 126                    |
| Vermont.....               | 285                       | 315                        |                               | 18                      | 47                       | 665                    |
| Massachusetts.....         | 1,188                     | 75                         | 21                            | 2                       | 18                       | 1,304                  |
| Rhode Island.....          | 196                       |                            |                               |                         | 5                        | 201                    |
| Connecticut.....           | 492                       |                            |                               | 172                     | 29                       | 693                    |
| New York.....              | 5,226                     |                            | 81                            | 1,457                   | 567                      | 7,331                  |
| New Jersey.....            | 824                       |                            |                               | 261                     | 35                       | 1,120                  |
| Pennsylvania.....          | 4,842                     | 2,048                      | 141                           | 374                     | 1,082                    | 8,487                  |
| South Atlantic Division:   |                           |                            |                               |                         |                          |                        |
| Delaware.....              | 18                        |                            |                               | 11                      | 5                        | 34                     |
| Maryland.....              | 394                       | 64                         |                               | 150                     | 10                       | 618                    |
| District of Columbia.....  | 77                        |                            | 193                           |                         |                          | 270                    |
| Virginia.....              | 429                       | 456                        | 140                           | 146                     | 323                      | 1,494                  |
| West Virginia.....         | 914                       | 253                        | 41                            | 37                      | 87                       | 1,342                  |
| North Carolina.....        | 808                       | 460                        | 342                           | 30                      | 442                      | 2,082                  |
| South Carolina.....        | 59                        | 139                        | 179                           | 6                       | 158                      | 541                    |
| Georgia.....               | 330                       | 98                         | 332                           | 96                      | 217                      | 1,073                  |
| Florida.....               | 68                        | 170                        | 3                             | 93                      | 44                       | 378                    |
| South Central Division:    |                           |                            |                               |                         |                          |                        |
| Kentucky.....              | 114                       | 632                        | 202                           | 166                     | 652                      | 1,766                  |
| Tennessee.....             | 508                       | 942                        | 527                           | 90                      | 495                      | 2,562                  |
| Alabama.....               | 720                       | 644                        | 63                            | 94                      | 198                      | 1,719                  |
| Mississippi.....           | 408                       | 218                        | 235                           | 348                     | 496                      | 1,705                  |
| Louisiana.....             | 232                       | 4                          | 51                            | 10                      | 48                       | 345                    |
| Texas.....                 | 684                       | 234                        | 237                           | 278                     | 405                      | 1,838                  |
| Arkansas.....              | 238                       | 68                         | 64                            | 336                     | 314                      | 1,020                  |
| Oklahoma.....              | 155                       |                            |                               |                         | 5                        | 160                    |
| Indian Territory.....      |                           |                            | 19                            | 3                       | 1                        | 23                     |
| North Central Division:    |                           |                            |                               |                         |                          |                        |
| Ohio.....                  | 400                       | 2,129                      | 641                           | 298                     | 376                      | 3,844                  |
| Indiana.....               | 1,307                     | 4,494                      | 195                           | 234                     | 375                      | 6,605                  |
| Illinois.....              | 1,641                     | 1,164                      | 231                           | 244                     | 383                      | 3,723                  |
| Michigan.....              | 1,061                     | 1,253                      | 105                           | 190                     | 60                       | 2,669                  |
| Wisconsin.....             | 1,798                     | 83                         | 14                            | 158                     | 209                      | 2,262                  |
| Minnesota.....             | 1,311                     | 184                        | 78                            | 106                     | 68                       | 1,747                  |
| Iowa.....                  | 1,688                     | 1,512                      | 385                           | 225                     | 459                      | 4,269                  |
| Missouri.....              | 2,302                     | 1,379                      | 310                           | 813                     | 343                      | 5,147                  |
| North Dakota.....          | 293                       | 64                         | 20                            | 27                      |                          | 404                    |
| South Dakota.....          | 388                       | 79                         | 125                           | 53                      | 96                       | 741                    |
| Nebraska.....              | 92                        | 1,349                      | 195                           | 91                      | 62                       | 1,780                  |
| Kansas.....                | 1,423                     | 607                        | 282                           | 26                      | 251                      | 2,595                  |
| Western Division:          |                           |                            |                               |                         |                          |                        |
| Montana.....               |                           | 10                         |                               | 14                      | 3                        | 27                     |
| Wyoming.....               |                           | 10                         | 20                            |                         | 4                        | 34                     |
| Colorado.....              | 363                       | 143                        |                               | 28                      | 7                        | 541                    |
| New Mexico.....            | 35                        |                            | 4                             |                         | 10                       | 49                     |
| Arizona.....               | 93                        |                            |                               |                         |                          | 93                     |
| Utah.....                  |                           | 357                        | 177                           |                         | 359                      | 893                    |
| Nevada.....                |                           |                            | 67                            | 12                      |                          | 79                     |
| Idaho.....                 | 83                        |                            |                               | 6                       | 4                        | 93                     |
| Washington.....            | 236                       |                            | 198                           | 7                       | 30                       | 471                    |
| Oregon.....                | 359                       |                            | 47                            |                         | 56                       | 462                    |
| California.....            | 1,228                     | 154                        | 369                           | 67                      | 61                       | 1,889                  |

TABLE 16 — *Review of public normal school statistics, 1890-1895.*

## SCHOOLS AND TEACHERS INSTRUCTING NORMAL STUDENTS.

| State or Territory.         | 1890-91. |           | 1891-92. |           | * 1892-93. |           | 1893-94. |           | 1894-95. |           |
|-----------------------------|----------|-----------|----------|-----------|------------|-----------|----------|-----------|----------|-----------|
|                             | Schools. | Teachers. | Schools. | Teachers. | Schools.   | Teachers. | Schools. | Teachers. | Schools. | Teachers. |
| United States.....          | 131      | 1,361     | 138      | 1,436     | 121        | 1,301     | 160      | 1,561     | 155      | 1,584     |
| North Atlantic Division.... | 54       | 675       | 56       | 698       | 55         | 649       | 53       | 685       | 48       | 677       |
| South Atlantic Division.... | 19       | 119       | 20       | 131       | 16         | 87        | 27       | 176       | 27       | 180       |
| South Central Division....  | 17       | 121       | 17       | 115       | 14         | 145       | 29       | 178       | 26       | 140       |
| North Central Division....  | 31       | 370       | 35       | 406       | 27         | 350       | 39       | 418       | 41       | 467       |
| Western Division.....       | 10       | 76        | 10       | 86        | 9          | 70        | 12       | 104       | 13       | 120       |
| North Atlantic Division:    |          |           |          |           |            |           |          |           |          |           |
| Maine.....                  | 5        | 23        | 6        | 41        | 5          | 40        | 5        | 26        | 5        | 24        |
| New Hampshire.....          | 2        | 7         | 2        | 7         | 2          | 8         | 1        | 6         | 1        | 7         |
| Vermont.....                | 3        | 15        | 3        | 21        | 3          | 20        | 3        | 21        | 2        | 15        |
| Massachusetts.....          | 10       | 86        | 10       | 106       | 11         | 94        | 7        | 83        | 6        | 73        |
| Rhode Island.....           | 1        | 9         | 1        | 9         | 1          | 8         | 1        | 10        | 1        | 10        |
| Connecticut.....            | 2        | 43        | 3        | 56        | 2          | 59        | 4        | 81        | 4        | 70        |
| New York.....               | 14       | 202       | 15       | 190       | 15         | 188       | 14       | 209       | 14       | 239       |
| New Jersey.....             | 3        | 24        | 3        | 29        | 3          | 19        | 3        | 28        | 3        | 28        |
| Pennsylvania.....           | 14       | 261       | 13       | 239       | 13         | 213       | 15       | 271       | 12       | 211       |
| South Atlantic Division:    |          |           |          |           |            |           |          |           |          |           |
| Delaware.....               |          |           |          |           |            |           |          |           | 1        | 7         |
| Maryland.....               | 1        | 9         | 1        | 7         | 1          | 11        | 1        | 9         | 1        | 9         |
| District of Columbia.....   | 2        | 11        | 2        | 18        | 2          | 14        | 2        | 13        | 2        | 15        |
| Virginia.....               | 4        | 47        | 4        | 46        | 2          | 16        | 5        | 53        | 3        | 22        |
| West Virginia.....          | 6        | 32        | 6        | 30        | 5          | 23        | 7        | 35        | 8        | 44        |
| North Carolina.....         | 3        | 9         | 4        | 15        | 3          | 10        | 7        | 42        | 7        | 56        |
| South Carolina.....         | 1        | 5         | 1        | 6         | 1          | 6         | 1        | 7         | 1        | 7         |
| Georgia.....                |          |           |          |           |            |           | 2        | 10        | 2        | 11        |
| Florida.....                | 2        | 6         | 2        | 9         | 2          | 7         | 2        | 7         | 2        | 9         |
| South Central Division:     |          |           |          |           |            |           |          |           |          |           |
| Kentucky.....               | 1        | 6         | 1        | 2         |            |           | 6        | 16        | 2        | 12        |
| Tennessee.....              | 2        | 24        | 3        | 32        | 1          | 21        | 1        | 22        | 1        | 22        |
| Alabama.....                | 8        | 58        | 8        | 53        | 6          | 54        | 7        | 65        | 6        | 29        |
| Mississippi.....            | 3        | 10        | 1        | 3         | 1          | 3         | 5        | 17        | 8        | 20        |
| Louisiana.....              | 1        | 7         | 2        | 10        | 2          | 16        | 1        | 13        | 1        | 14        |
| Texas.....                  | 1        | 11        | 1        | 11        |            |           | 2        | 23        | 2        | 24        |
| Arkansas.....               | 1        | 5         | 1        | 4         | 3          | 16        | 6        | 17        | 5        | 14        |
| Oklahoma.....               |          |           |          |           | 1          | 5         | 1        | 5         | 1        | 5         |
| Indian Territory.....       |          |           |          |           |            |           |          |           |          |           |
| North Central Division:     |          |           |          |           |            |           |          |           |          |           |
| Ohio.....                   | 4        | 28        | 4        | 21        | 3          | 20        | 4        | 29        | 6        | 41        |
| Indiana.....                | 2        | 21        | 3        | 47        | 2          | 27        | 3        | 39        | 3        | 27        |
| Illinois.....               | 3        | 56        | 3        | 55        | 2          | 34        | 3        | 44        | 3        | 51        |
| Michigan.....               | 1        | 29        | 2        | 36        | 2          | 44        | 2        | 30        | 2        | 23        |
| Wisconsin.....              | 4        | 50        | 5        | 60        | 5          | 76        | 5        | 66        | 6        | 85        |
| Minnesota.....              | 4        | 51        | 5        | 47        | 4          | 43        | 5        | 58        | 5        | 59        |
| Iowa.....                   | 3        | 30        | 3        | 27        | 2          | 24        | 4        | 27        | 5        | 42        |
| Missouri.....               | 5        | 52        | 4        | 49        | 2          | 29        | 7        | 55        | 5        | 48        |
| North Dakota.....           | 1        | 5         | 2        | 12        | 2          | 15        | 2        | 16        | 2        | 16        |
| South Dakota.....           | 2        | 18        | 2        | 12        | 2          | 18        | 2        | 17        | 2        | 20        |
| Nebraska.....               | 1        | 13        | 1        | 12        |            |           | 1        | 14        | 1        | 15        |
| Kansas.....                 | 1        | 17        | 1        | 18        | 1          | 20        | 1        | 23        | 1        | 25        |
| Western Division:           |          |           |          |           |            |           |          |           |          |           |
| Montana.....                |          |           |          |           |            |           |          |           |          |           |
| Wyoming.....                |          |           |          |           |            |           |          |           |          |           |
| Colorado.....               |          |           | 1        | 15        | 1          | 14        | 1        | 16        | 1        | 17        |
| New Mexico.....             |          |           |          |           |            |           | 1        | 2         | 1        | 3         |
| Arizona.....                | 1        | 2         | 1        | 2         |            |           | 1        | 3         | 1        | 3         |
| Utah.....                   |          |           |          |           |            |           |          |           |          |           |
| Nevada.....                 |          |           |          |           |            |           |          |           |          |           |
| Idaho.....                  |          |           |          |           |            |           |          |           | 1        | 4         |
| Washington.....             | 2        | 10        | 2        | 10        | 2          | 13        | 2        | 14        | 2        | 15        |
| Oregon.....                 | 3        | 15        | 2        | 8         | 3          | 20        | 3        | 22        | 3        | 22        |
| California.....             | 4        | 49        | 4        | 51        | 3          | 23        | 4        | 47        | 4        | 56        |

\* Incomplete returns for 1893.

TABLE 17.—Review of public normal school statistics, 1890-1895.

## NUMBER OF NORMAL STUDENTS AND GRADUATES.

| State or Territory.         | 1890-91.  |            | 1891-92.  |            | * 1892-93. |            | 1893-94.  |            | 1894-95.  |            |
|-----------------------------|-----------|------------|-----------|------------|------------|------------|-----------|------------|-----------|------------|
|                             | Students. | Graduates. | Students. | Graduates. | Students.  | Graduates. | Students. | Graduates. | Students. | Graduates. |
| United States.....          | 31,792    | 5,060      | 33,427    | 5,849      | 27,926     | 4,491      | 37,899    | 5,952      | 36,491    | 5,492      |
| North Atlantic Division.... | 15,240    | 3,005      | 15,392    | 3,326      | 11,988     | 2,465      | 16,424    | 2,916      | 14,003    | 2,646      |
| South Atlantic Division.... | 2,223     | 312        | 2,704     | 557        | 1,752      | 277        | 3,334     | 396        | 3,097     | 347        |
| South Central Division....  | 2,566     | 327        | 2,946     | 385        | 3,005      | 508        | 3,374     | 483        | 3,274     | 366        |
| North Central Division....  | 10,432    | 1,117      | 10,736    | 1,485      | 9,688      | 1,136      | 12,056    | 1,668      | 13,710    | 1,692      |
| Western Division.....       | 1,331     | 299        | 1,649     | 296        | 1,493      | 305        | 2,711     | 489        | 2,407     | 441        |
| North Atlantic Division:    |           |            |           |            |            |            |           |            |           |            |
| Maine.....                  | 585       | 123        | 717       | 127        | 652        | 125        | 854       | 143        | 860       | 123        |
| New Hampshire.....          | 114       | 34         | 107       | 37         | 98         | 27         | 86        | 27         | 90        | 19         |
| Vermont.....                | 269       | 65         | 499       | 103        | 446        | 102        | 541       | 94         | 285       | 62         |
| Massachusetts.....          | 1,038     | 250        | 1,287     | 364        | 1,213      | 362        | 1,232     | 244        | 1,188     | 197        |
| Rhode Island.....           | 203       | 24         | 214       | 31         | 191        | 26         | 199       | 29         | 106       | 14         |
| Connecticut.....            | 405       | 104        | 512       | 112        | 515        | 118        | 426       | 124        | 492       | 166        |
| New York.....               | 4,042     | 1,147      | 4,930     | 1,247      | 3,197      | 752        | 5,339     | 940        | 5,226     | 975        |
| New Jersey.....             | 448       | 161        | 525       | 162        | 616        | 160        | 639       | 180        | 824       | 203        |
| Pennsylvania.....           | 7,236     | 1,097      | 6,601     | 1,143      | 5,060      | 793        | 7,108     | 1,135      | 4,842     | 887        |
| South Atlantic Division:    |           |            |           |            |            |            |           |            |           |            |
| Delaware.....               |           |            |           |            |            |            |           |            | 18        | 18         |
| Maryland.....               | 235       | 64         | 253       | 70         | 249        | 55         | 378       | 97         | 394       | 59         |
| District of Columbia....    | 71        | 68         | 71        | 68         | 75         | 75         | 77        | 76         | 77        | 73         |
| Virginia.....               | 620       | 81         | 595       | 103        | 279        | 57         | 782       | 61         | 429       | 61         |
| West Virginia.....          | 853       | 47         | 890       | 64         | 737        | 70         | 1,001     | 52         | 914       | 53         |
| North Carolina.....         | 276       | 12         | 395       | 14         | 337        | 10         | 771       | 61         | 808       | 48         |
| South Carolina.....         | 54        | 34         | 57        | 28         | 66         | 8          | 59        | 32         | 59        | 7          |
| Georgia.....                |           |            |           |            |            |            | 183       | 27         | 330       | 20         |
| Florida.....                | 114       | 6          | 443       | 10         | 9          | 2          | 83        | 10         | 68        | 8          |
| South Central Division:     |           |            |           |            |            |            |           |            |           |            |
| Kentucky.....               | 36        | 36         | 32        | 31         |            |            | 335       | 35         | 114       | 43         |
| Tennessee.....              | 334       | 77         | 599       | 143        | 560        | 150        | 508       | 144        | 508       | 144        |
| Alabama.....                | 1,467     | 101        | 1,283     | 106        | 1,485      | 94         | 1,108     | 113        | 720       | 72         |
| Mississippi.....            | 207       | 6          | 230       | 5          | 182        | 12         | 167       | 32         | 623       | 33         |
| Louisiana.....              | 138       | 18         | 183       | 46         | 203        | 36         | 197       | 29         | 232       | 34         |
| Texas.....                  | 320       | 78         | 386       | 44         |            |            | 660       | 94         | 684       | 21         |
| Arkansas.....               | 64        | 11         | 233       | 10         | 473        | 10         | 283       | 36         | 238       | 19         |
| Oklahoma.....               |           |            |           |            | 102        | 0          | 116       | 0          | 155       | 0          |
| Indian Territory.....       |           |            |           |            |            |            |           |            |           |            |
| North Central Division:     |           |            |           |            |            |            |           |            |           |            |
| Ohio.....                   | 276       | 105        | 270       | 175        | 518        | 64         | 404       | 161        | 400       | 209        |
| Indiana.....                | 1,041     | 60         | 1,039     | 71         | 973        | 24         | 1,446     | 59         | 1,307     | 101        |
| Illinois.....               | 1,243     | 119        | 1,033     | 129        | 1,115      | 52         | 1,117     | 143        | 1,641     | 47         |
| Michigan.....               | 909       | 124        | 1,044     | 210        | 1,025      | 204        | 1,022     | 190        | 1,061     | 235        |
| Wisconsin.....              | 1,206     | 109        | 1,406     | 130        | 1,338      | 164        | 1,512     | 207        | 1,798     | 215        |
| Minnesota.....              | 868       | 138        | 982       | 194        | 954        | 237        | 1,083     | 281        | 1,311     | 273        |
| Iowa.....                   | 960       | 105        | 785       | 101        | 722        | 129        | 891       | 148        | 1,688     | 153        |
| Missouri.....               | 2,037     | 273        | 2,054     | 308        | 1,496      | 135        | 2,308     | 268        | 2,302     | 191        |
| North Dakota.....           | 37        | 0          | 171       | 0          | 193        | 0          | 242       | 3          | 293       | 26         |
| South Dakota.....           | 352       | 22         | 296       | 32         | 319        | 33         | 328       | 38         | 388       | 45         |
| Nebraska.....               | 469       | 62         | 456       | 60         |            |            | 491       | 83         | 92        | 92         |
| Kansas.....                 | 1,034     |            | 1,200     | 75         | 1,035      | 103        | 1,212     | 87         | 1,429     | 102        |
| Western Division:           |           |            |           |            |            |            |           |            |           |            |
| Montana.....                |           |            |           |            |            |            |           |            |           |            |
| Wyoming.....                |           |            |           |            |            |            |           |            |           |            |
| Colorado.....               |           |            | 272       | 12         | 314        | 23         | 363       | 35         | 363       |            |
| New Mexico.....             |           |            |           |            |            |            | 76        | 0          | 35        | 1          |
| Arizona.....                | 39        | 2          | 48        | 2          |            |            | 83        | 14         | 93        | 7          |
| Utah.....                   |           |            |           |            |            |            |           |            |           |            |
| Nevada.....                 |           |            |           |            |            |            |           |            |           |            |
| Idaho.....                  |           |            |           |            |            |            |           |            | 83        | 0          |
| Washington.....             | 25        | 0          | 166       | 3          | 224        | 34         | * 278     | 28         | 236       | 8          |
| Oregon.....                 | 172       | 33         | 69        | 11         | 263        | 69         | 540       | 88         | 359       | 65         |
| California.....             | 1,095     | 264        | 1,094     | 268        | 692        | 189        | 1,371     | 324        | 1,238     | 360        |

\* Incomplete returns for 1893.

TABLE 18.—*Review of public normal school statistics, 1890-1895.*

## NORMAL STUDENTS, MALE AND FEMALE.

| State or Territory.          | 1890-91. |          | 1891-92. |          | 1892-93. |          | 1893-94. |          | 1894-95. |          |
|------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
|                              | Male.    | Fe-male. | Male.    | Fe-male. | Male.    | Fe-male. | Male.    | Fe-male. | Male.    | Fe-male. |
| United States.....           | 9,312    | 22,580   | 9,538    | 23,889   | 8,633    | 19,293   | 11,606   | 26,293   | 10,248   | 26,028   |
| North Atlantic Division..... | 3,427    | 11,813   | 3,239    | 12,153   | 2,930    | 9,058    | 4,400    | 12,024   | 3,093    | 10,910   |
| South Atlantic Division..... | 970      | 1,253    | 1,255    | 1,449    | 623      | 1,129    | 1,098    | 2,236    | 819      | 2,278    |
| South Central Division.....  | 1,081    | 1,485    | 1,216    | 1,730    | 1,298    | 1,707    | 1,474    | 1,900    | 1,271    | 1,788    |
| North Central Division.....  | 3,626    | 6,806    | 3,569    | 7,167    | 3,476    | 6,212    | 4,012    | 8,044    | 4,557    | 9,153    |
| Western Division.....        | 208      | 1,223    | 259      | 1,390    | 306      | 1,187    | 622      | 2,089    | 508      | 1,899    |
| North Atlantic Division:     |          |          |          |          |          |          |          |          |          |          |
| Maine.....                   | 116      | 469      | 162      | 555      | 147      | 505      | 227      | 627      | 173      | 687      |
| New Hampshire.....           | 3        | 111      | 1        | 106      | 0        | 98       | 0        | 86       | 1        | 89       |
| Vermont.....                 | 43       | 226      | 114      | 385      | 83       | 363      | 96       | 445      | 41       | 244      |
| Massachusetts.....           | 42       | 936      | 58       | 1,229    | 64       | 1,149    | 61       | 1,171    | 66       | 1,122    |
| Rhode Island.....            | 2        | 201      | 0        | 214      | 0        | 191      | 199      | 0        | 2        | 194      |
| Connecticut.....             | 1        | 404      | 36       | 476      | 4        | 511      | 7        | 419      | 9        | 483      |
| New York.....                | 788      | 4,154    | 756      | 4,174    | 417      | 2,780    | 892      | 4,447    | 945      | 4,281    |
| New Jersey.....              | 31       | 417      | 27       | 498      | 42       | 574      | 50       | 589      | 135      | 689      |
| Pennsylvania.....            | 2,401    | 4,855    | 2,085    | 4,516    | 2,173    | 2,887    | 2,868    | 4,240    | 1,721    | 3,121    |
| South Atlantic Division:     |          |          |          |          |          |          |          |          |          |          |
| Delaware.....                |          |          |          |          |          |          |          |          | 0        | 18       |
| Maryland.....                | 20       | 215      | 19       | 234      | 17       | 232      | 20       | 358      | 17       | 377      |
| District of Columbia.....    | 2        | 69       | 2        | 69       | 4        | 71       | 3        | 74       | 6        | 71       |
| Virginia.....                | 349      | 271      | 337      | 258      | 105      | 174      | 288      | 494      | 56       | 373      |
| West Virginia.....           | 434      | 419      | 464      | 426      | 374      | 363      | 514      | 487      | 494      | 420      |
| North Carolina.....          | 99       | 177      | 206      | 169      | 119      | 218      | 161      | 610      | 159      | 649      |
| South Carolina.....          | 0        | 54       | 0        | 57       | 0        | 66       | 59       | 0        | 0        | 59       |
| Georgia.....                 |          |          |          |          |          |          | 15       | 168      | 56       | 274      |
| Florida.....                 | 66       | 48       | 227      | 216      | 4        | 5        | 38       | 45       | 31       | 37       |
| South Central Division:      |          |          |          |          |          |          |          |          |          |          |
| Kentucky.....                | 0        | 36       | 0        | 32       |          |          | 132      | 203      | 16       | 98       |
| Tennessee.....               | 117      | 217      | 220      | 379      | 200      | 360      | 193      | 315      | 193      | 315      |
| Alabama.....                 | 688      | 779      | 581      | 702      | 674      | 811      | 533      | 575      | 330      | 390      |
| Mississippi.....             | 116      | 91       | 113      | 117      | 83       | 99       | 97       | 70       | 207      | 201      |
| Louisiana.....               | 16       | 122      | 24       | 159      | 38       | 165      | 43       | 154      | 54       | 178      |
| Texas.....                   | 101      | 219      | 125      | 261      |          |          | 267      | 393      | 275      | 409      |
| Arkansas.....                | 43       | 21       | 153      | 80       | 263      | 210      | 161      | 122      | 146      | 92       |
| Oklahoma.....                |          |          |          |          | 40       | 62       | 48       | 68       | 50       | 105      |
| Indian Territory.....        |          |          |          |          |          |          |          |          |          |          |
| North Central Division:      |          |          |          |          |          |          |          |          |          |          |
| Ohio.....                    | 75       | 201      | 40       | 230      | 151      | 367      | 25       | 379      | 27       | 273      |
| Indiana.....                 | 400      | 641      | 403      | 636      | 500      | 473      | 552      | 894      | 542      | 765      |
| Illinois.....                | 474      | 769      | 417      | 616      | 460      | 655      | 378      | 739      | 605      | 1,036    |
| Michigan.....                | 309      | 600      | 335      | 709      | 286      | 739      | 259      | 763      | 243      | 818      |
| Wisconsin.....               | 352      | 854      | 461      | 945      | 399      | 939      | 455      | 1,057    | 529      | 1,269    |
| Minnesota.....               | 177      | 691      | 193      | 789      | 173      | 781      | 253      | 830      | 276      | 1,035    |
| Iowa.....                    | 296      | 664      | 207      | 578      | 214      | 508      | 297      | 504      | 553      | 1,139    |
| Missouri.....                | 879      | 1,158    | 862      | 1,192    | 652      | 844      | 994      | 1,314    | 939      | 1,303    |
| North Dakota.....            | 16       | 21       | 53       | 118      | 88       | 105      | 94       | 148      | 105      | 188      |
| South Dakota.....            | 112      | 240      | 61       | 235      | 118      | 201      | 107      | 221      | 116      | 272      |
| Nebraska.....                | 122      | 347      | 137      | 319      |          |          | 148      | 343      | 16       | 76       |
| Kansas.....                  | 414      | 620      | 400      | 800      | 435      | 600      | 450      | 762      | 541      | 888      |
| Western Division:            |          |          |          |          |          |          |          |          |          |          |
| Montana.....                 |          |          |          |          |          |          |          |          |          |          |
| Wyoming.....                 |          |          |          |          |          |          |          |          |          |          |
| Colorado.....                |          |          | 54       | 218      | 68       | 246      | 88       | 275      | 86       | 277      |
| New Mexico.....              |          |          |          |          |          |          | 44       | 32       | 0        | 35       |
| Arizona.....                 | 14       | 25       | 10       | 38       |          |          | 25       | 58       | 46       | 47       |
| Utah.....                    |          |          |          |          |          |          |          |          |          |          |
| Nevada.....                  |          |          |          |          |          |          |          |          |          |          |
| Idaho.....                   |          |          |          |          |          |          |          |          | 39       | 44       |
| Washington.....              | 8        | 17       | 57       | 109      | 62       | 162      | 86       | 192      | 82       | 154      |
| Oregon.....                  | 76       | 96       | 32       | 37       | 106      | 157      | 226      | 314      | 128      | 231      |
| California.....              | 110      | 985      | 106      | 988      | 70       | 622      | 153      | 1,218    | 127      | 1,111    |



TABLE 19.—Review of public normal school statistics, 1890-1895.

## TEACHERS AND STUDENTS IN OTHER DEPARTMENTS.

| State or Territory.         | 1890-91.       |                | 1891-92.       |                | 1892-93.       |                | 1893-94.       |                | 1894-95.       |                |
|-----------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
|                             | Teach-<br>ers. | Stu-<br>dents. | Teach-<br>ers. | Stu-<br>dents. | Teach-<br>ers. | Stu-<br>dents. | Teach-<br>ers. | Stu-<br>dents. | Teach-<br>ers. | Stu-<br>dents. |
| United States .....         | 217            | .....          | 243            | 4,645          | 319            | 17,777         | 551            | 20,722         | 467            | 21,428         |
| North Atlantic Division.... | 76             | .....          | 95             | 1,827          | 185            | 10,056         | 256            | 6,538          | 183            | 9,018          |
| South Atlantic Division.... | 42             | .....          | 24             | 789            | 21             | 1,234          | 87             | 1,774          | 31             | 1,329          |
| South Central Division....  | 50             | .....          | 64             | 1,132          | 40             | 1,532          | 96             | 4,189          | 64             | 2,689          |
| North Central Division....  | 38             | .....          | 49             | 791            | 49             | 3,775          | 91             | 7,532          | 155            | 6,733          |
| Western Division .....      | 11             | .....          | 11             | 106            | 24             | 1,680          | 21             | 689            | 29             | 1,659          |
| North Atlantic Division:    |                |                |                |                |                |                |                |                |                |                |
| Maine .....                 | 0              | .....          | 0              | 28             | 0              | 652            | 6              | 20             | 10             | 293            |
| New Hampshire .....         | 0              | .....          | 0              | 0              | 6              | 0              | 6              | 0              | 6              | 250            |
| Vermont .....               | 0              | .....          | 0              | 0              | 0              | 0              | 0              | 10             | 0              | 0              |
| Massachusetts .....         | 9              | .....          | 13             | 226            | 49             | 2,200          | 40             | 79             | 11             | 368            |
| Rhode Island .....          | 0              | .....          | 0              | 0              | .....          | 0              | 6              | 0              | 6              | 0              |
| Connecticut .....           | 0              | .....          | 0              | 0              | .....          | 1,803          | 51             | 227            | 23             | 0              |
| New York .....              | 35             | .....          | 29             | 969            | 74             | 2,791          | 59             | 3,222          | 81             | 4,897          |
| New Jersey .....            | 13             | .....          | 19             | 88             | 31             | 921            | 24             | 619            | 26             | 835            |
| Pennsylvania .....          | 19             | .....          | 34             | 516            | 25             | 1,684          | 64             | 2,361          | 25             | 2,430          |
| South Atlantic Division:    |                |                |                |                |                |                |                |                |                |                |
| Delaware .....              | .....          | .....          | .....          | .....          | .....          | .....          | .....          | .....          | 0              | 0              |
| Maryland .....              | 0              | .....          | 3              | .....          | .....          | 113            | .....          | 51             | 4              | 55             |
| District of Columbia .....  | 5              | .....          | 0              | 0              | 0              | 800            | 0              | 0              | 0              | 0              |
| Virginia .....              | 29             | .....          | 16             | 449            | 5              | 269            | 55             | 689            | 9              | 212            |
| West Virginia .....         | 3              | .....          | 0              | 29             | 7              | 37             | 11             | 122            | 6              | 361            |
| North Carolina .....        | 1              | .....          | 1              | 187            | 3              | 49             | 6              | 506            | 1              | 346            |
| South Carolina .....        | 0              | .....          | 0              | 0              | .....          | 0              | .....          | 0              | 0              | 0              |
| Georgia .....               | .....          | .....          | .....          | .....          | .....          | .....          | 11             | 303            | 7              | 211            |
| Florida .....               | 4              | .....          | 4              | 124            | 6              | 66             | 4              | 103            | 4              | 144            |
| South Central Division:     |                |                |                |                |                |                |                |                |                |                |
| Kentucky .....              | 0              | .....          | 0              | 0              | .....          | .....          | 20             | 1,438          | 0              | 508            |
| Tennessee .....             | 6              | .....          | 14             | 185            | .....          | .....          | 4              | 0              | 4              | 0              |
| Alabama .....               | 27             | .....          | 46             | 947            | 27             | 1,039          | 46             | 1,100          | 36             | 778            |
| Mississippi .....           | 14             | .....          | 1              | 0              | 1              | .....          | 6              | 862            | 17             | 892            |
| Louisiana .....             | 3              | .....          | 3              | 0              | 9              | 412            | 0              | 0              | 0              | 127            |
| Texas .....                 | 0              | .....          | 0              | 0              | .....          | .....          | 5              | 86             | 5              | 86             |
| Arkansas .....              | 0              | .....          | 0              | 0              | 3              | 31             | 15             | 703            | 2              | 298            |
| Oklahoma .....              | .....          | .....          | .....          | .....          | .....          | .....          | .....          | 0              | 0              | 0              |
| Indian Territory .....      | .....          | .....          | .....          | .....          | .....          | .....          | .....          | .....          | .....          | .....          |
| North Central Division:     |                |                |                |                |                |                |                |                |                |                |
| Ohio .....                  | 7              | .....          | 0              | 0              | 6              | 423            | 0              | 125            | 2              | 524            |
| Indiana .....               | 9              | .....          | 5              | 5              | 6              | 0              | 2              | 33             | 4              | 103            |
| Illinois .....              | 4              | .....          | 5              | 431            | 6              | 806            | 16             | 1,690          | 15             | 1,432          |
| Michigan .....              | 0              | .....          | 1              | 0              | 1              | 318            | 15             | 346            | 27             | 392            |
| Wisconsin .....             | 13             | .....          | 20             | 12             | 8              | 600            | 19             | 760            | 23             | 617            |
| Minnesota .....             | 3              | .....          | 12             | 10             | 10             | 632            | 8              | 806            | 9              | 205            |
| Iowa .....                  | 0              | .....          | 0              | 250            | 0              | 268            | 7              | 441            | 9              | 546            |
| Missouri .....              | 1              | .....          | 0              | 0              | 1              | 267            | 15             | 2,761          | 66             | 2,103          |
| North Dakota .....          | 1              | .....          | 0              | 35             | 2              | 79             | 1              | 319            | 0              | 0              |
| South Dakota .....          | 0              | .....          | 0              | 35             | 5              | 40             | 5              | 144            | 0              | 106            |
| Nebraska .....              | 0              | .....          | 2              | 0              | .....          | .....          | 1              | 0              | 0              | 464            |
| Kansas .....                | 0              | .....          | 4              | 13             | 4              | 342            | 2              | 113            | 0              | 231            |
| Western Division:           |                |                |                |                |                |                |                |                |                |                |
| Montana .....               | .....          | .....          | .....          | .....          | .....          | .....          | .....          | .....          | .....          | .....          |
| Wyoming .....               | .....          | .....          | .....          | .....          | .....          | .....          | .....          | .....          | .....          | .....          |
| Colorado .....              | .....          | .....          | 0              | 0              | 1              | 131            | 5              | 152            | 6              | 256            |
| New Mexico .....            | .....          | .....          | .....          | .....          | .....          | .....          | .....          | 0              | 0              | 76             |
| Arizona .....               | 0              | .....          | 0              | 38             | .....          | .....          | 0              | 8              | 0              | 0              |
| Utah .....                  | .....          | .....          | .....          | .....          | .....          | .....          | .....          | .....          | .....          | .....          |
| Nevada .....                | .....          | .....          | .....          | .....          | .....          | .....          | .....          | .....          | .....          | .....          |
| Idaho .....                 | .....          | .....          | .....          | .....          | .....          | .....          | .....          | .....          | 0              | 0              |
| Washington .....            | 0              | .....          | 2              | 28             | 0              | 60             | 2              | 273            | 2              | 260            |
| Oregon .....                | 11             | .....          | 7              | 40             | 8              | 261            | 4              | 256            | 6              | 249            |
| California .....            | 0              | .....          | 2              | 0              | 15             | 628            | 10             | 0              | 15             | 873            |

TABLE 20.—*Review of public normal school statistics, 1890-1895.*

APPROPRIATIONS FROM STATE, COUNTY, OR CITY FOR SUPPORT.

| State or Territory.           | 1890-91.    | 1891-92.    | * 1892-93.  | 1893-94.    | 1894-95.    |
|-------------------------------|-------------|-------------|-------------|-------------|-------------|
| United States.....            | \$1,285,700 | \$1,567,082 | \$1,452,914 | \$1,996,271 | \$1,917,375 |
| North Atlantic Division ..... | 555,485     | 702,284     | 696,603     | 907,010     | 773,035     |
| South Atlantic Division ..... | 86,380      | 93,260      | 62,268      | 121,460     | 141,017     |
| South Central Division .....  | 86,329      | 83,800      | 56,344      | 119,949     | 113,460     |
| North Central Division .....  | 453,006     | 527,038     | 465,319     | 651,824     | 668,063     |
| Western Division .....        | 104,500     | 160,700     | 172,380     | 196,023     | 221,600     |
| North Atlantic Division:      |             |             |             |             |             |
| Maine.....                    | 20,000      | 24,650      | 28,600      | 26,450      | 25,600      |
| New Hampshire .....           | 7,000       | 9,000       | 12,000      | 12,000      | 12,000      |
| Vermont.....                  | 7,176       | 8,670       | 10,100      | 13,039      | 7,264       |
| Massachusetts .....           | 74,650      | 105,011     | 121,731     | 122,164     | 78,397      |
| Rhode Island.....             | 12,874      | 14,000      | 14,000      | 16,000      | 18,000      |
| Connecticut.....              | 20,000      | 34,600      | 49,000      | 79,656      | 72,000      |
| New York.....                 | 335,981     | 334,847     | 336,615     | 397,523     | 360,111     |
| New Jersey.....               | 24,276      | 21,500      | 28,750      | 34,683      | 40,570      |
| Pennsylvania.....             | 53,528      | 150,000     | 89,777      | 206,095     | 159,093     |
| South Atlantic Division:      |             |             |             |             |             |
| Delaware.....                 |             |             |             |             | 9,100       |
| Maryland.....                 | 10,500      | 10,500      | 10,500      | 10,500      | 10,500      |
| District of Columbia.....     |             |             |             |             |             |
| Virginia.....                 | 47,000      | 58,500      | 17,000      | 27,950      | 30,209      |
| West Virginia.....            | 14,630      | 13,430      | 15,000      | 18,718      | 28,267      |
| North Carolina.....           | 5,200       | 6,000       | 4,800       | 29,235      | 19,800      |
| South Carolina.....           | 1,050       | 1,050       | 5,250       | 7,250       | 5,250       |
| Georgia.....                  |             |             |             | 23,207      | 32,600      |
| Florida.....                  | 8,000       | 3,780       | 10,218      | 3,600       | 5,000       |
| South Central Division:       |             |             |             |             |             |
| Kentucky.....                 | 4,320       |             |             | 23,588      | 9,200       |
| Tennessee.....                | 11,097      | 16,000      | 1,500       | 1,500       | 15,060      |
| Alabama.....                  | 31,419      | 31,000      | 27,604      | 23,411      | 18,525      |
| Mississippi.....              | 4,520       | 2,500       | 2,560       | 3,950       | 8,425       |
| Louisiana.....                | 10,000      | 10,000      | 12,500      | 12,500      | 13,750      |
| Texas.....                    | 20,000      | 20,000      |             | 35,000      | 40,560      |
| Arkansas.....                 | 4,973       | 4,300       | 6,240       | 12,500      | 8,060       |
| Oklahoma.....                 |             |             | 6,000       | 7,500       |             |
| Indian Territory .....        |             |             |             |             |             |
| North Central Division:       |             |             |             |             |             |
| Ohio.....                     | 5,000       | 6,000       | 1,500       | 860         | 5,000       |
| Indiana.....                  | 30,600      | 41,100      | 40,000      | 42,709      | 40,060      |
| Illinois.....                 | 96,979      | 100,104     | 56,165      | 96,104      | 56,500      |
| Michigan.....                 | 36,360      | 49,908      | 56,647      | 62,298      | 58,450      |
| Wisconsin.....                | 86,142      | 121,201     | 123,417     | 120,911     | 153,271     |
| Minnesota.....                | 58,500      | 68,500      | 79,300      | 82,000      | 88,000      |
| Iowa.....                     | 21,500      | 25,000      | 21,000      | 27,875      | 38,525      |
| Missouri.....                 | 53,000      | 37,250      | 26,250      | 142,561     | 142,317     |
| North Dakota.....             | 500         | 13,500      | 23,000      | 20,000      | 22,000      |
| South Dakota.....             | 21,000      | 21,500      | 21,100      | 26,250      | 26,000      |
| Nebraska.....                 | 18,850      | 19,350      |             | 21,200      | 30,000      |
| Kansas.....                   | 22,175      | 23,625      | 20,000      | 9,125       | 6,000       |
| Western Division:             |             |             |             |             |             |
| Montana.....                  |             |             |             |             |             |
| Wyoming.....                  |             |             |             |             |             |
| Colorado.....                 |             | 35,000      | 35,000      | 35,000      | 35,000      |
| New Mexico.....               |             |             |             | 3,500       | 0           |
| Arizona.....                  | 7,000       | 6,000       |             | 7,200       | 0           |
| Utah.....                     |             |             |             |             |             |
| Nevada.....                   |             |             |             |             |             |
| Idaho.....                    |             |             |             |             | 7,600       |
| Washington.....               | 19,150      | 28,300      | 43,885      | 37,500      | 39,000      |
| Oregon.....                   | 100         | 900         | 48,000      | 18,528      | 23,200      |
| California.....               | 78,250      | 90,500      | 45,500      | 94,300      | 117,000     |

\* Incomplete returns in 1893.

TABLE 21.—Review of public normal school statistics, 1890-1895.

## PUBLIC APPROPRIATIONS FOR BUILDINGS AND IMPROVEMENTS.

| State or Territory.          | 1890-91.   | 1891-92.   | 1892-93.   | 1893-94.      | 1894-95.      |
|------------------------------|------------|------------|------------|---------------|---------------|
| United States.....           | \$409, 916 | \$394, 635 | \$816, 826 | \$1, 583, 399 | \$1, 003, 933 |
| North Atlantic Division..... | 225, 412   | 169, 050   | 485, 516   | 856, 670      | 449, 959      |
| South Atlantic Division..... | 40, 900    | 42, 624    | 33, 074    | 49, 580       | 100, 309      |
| South Central Division.....  | 5, 500     | 11, 948    | 24, 450    | 23, 350       | 11, 200       |
| North Central Division.....  | 71, 539    | 100, 913   | 168, 686   | 374, 799      | 320, 165      |
| Western Division.....        | 66, 565    | 70, 100    | 105, 100   | 279, 000      | 122, 300      |
| North Atlantic Division:     |            |            |            |               |               |
| Maine.....                   | 279        | 5, 000     | 2, 000     | 12, 500       | 39, 000       |
| New Hampshire.....           |            | 0          | 0          |               |               |
| Vermont.....                 |            | 0          | 1, 000     | 10, 300       |               |
| Massachusetts.....           | 1, 500     | 25, 500    | 200, 000   | 276, 200      |               |
| Rhode Island.....            | 0          | 0          | 0          | 0             | 0             |
| Connecticut.....             | 25, 000    | 0          | 75, 000    | 125, 000      | 240, 600      |
| New York.....                | 70, 633    | 44, 550    | 92, 391    | 97, 793       | 60, 142       |
| New Jersey.....              | 48, 000    | 0          | 12, 000    | 10, 000       | 10, 693       |
| Pennsylvania.....            | 80, 000    | 94, 000    | 103, 125   | 324, 877      | 109, 124      |
| South Atlantic Division:     |            |            |            |               |               |
| Delaware.....                |            |            |            |               |               |
| Maryland.....                | 0          | 2, 224     | 2, 224     |               | 43, 776       |
| District of Columbia.....    |            |            |            |               | 0             |
| Virginia.....                | 0          | 0          | 0          | 5, 050        |               |
| West Virginia.....           | 37, 900    | 40, 400    | 27, 300    | 20, 000       | 42, 000       |
| North Carolina.....          | 0          | 0          | 150        | 4, 630        | 5, 033        |
| South Carolina.....          | 0          | 0          | 2, 000     |               |               |
| Georgia.....                 |            |            |            | 2, 500        | 1, 000        |
| Florida.....                 | 3, 000     | 0          | 1, 400     | 7, 400        | 8, 500        |
| South Central Division:      |            |            |            |               |               |
| Kentucky.....                | 0          |            |            | 2, 500        |               |
| Tennessee.....               | 0          | 4, 000     | 0          |               |               |
| Alabama.....                 | 3, 000     | 5, 448     | 200        | 1, 300        | 500           |
| Mississippi.....             | 0          | 0          | 0          | 0             |               |
| Louisiana.....               | 2, 500     | 2, 500     | 1, 250     | 1, 250        | 7, 500        |
| Texas.....                   | 0          | 0          |            | 3, 000        | 3, 000        |
| Arkansas.....                | 0          | 0          | 6, 000     | 300           | 200           |
| Oklahoma.....                |            |            | 17, 000    | 15, 000       |               |
| Indian Territory.....        |            |            |            |               |               |
| North Central Division:      |            |            |            |               |               |
| Ohio.....                    | 0          | 0          | 0          | 0             |               |
| Indiana.....                 | 0          | 0          | 40, 000    | 40, 000       | 20, 000       |
| Illinois.....                | 4, 000     | 0          |            | 0             | 40, 000       |
| Michigan.....                | 0          | 4, 000     | 20, 000    | 20, 000       | 20, 000       |
| Wisconsin.....               | 1, 139     | 22, 913    | 2, 686     | 20, 000       | 12, 736       |
| Minnesota.....               | 15, 000    | 25, 000    | 66, 000    | 116, 000      | 54, 500       |
| Iowa.....                    | 8, 400     | 6, 000     | 0          | 3, 000        | 36, 000       |
| Missouri.....                | 10, 000    | 0          | 0          | 104, 479      | 131, 929      |
| North Dakota.....            | 20, 000    | 40, 000    | 40, 000    | 18, 220       |               |
| South Dakota.....            | 0          | 0          | 0          | 3, 100        | 0             |
| Nebraska.....                | 13, 000    | 3, 000     |            | 0             | 5, 000        |
| Kansas.....                  | 0          |            | 0          | 50, 000       |               |
| Western Division:            |            |            |            |               |               |
| Montana.....                 |            |            |            |               |               |
| Wyoming.....                 |            |            |            |               |               |
| Colorado.....                |            | 30, 000    | 20, 000    | 35, 000       | 10, 000       |
| New Mexico.....              |            |            |            | 12, 000       |               |
| Arizona.....                 | 0          | 0          |            | 8, 000        | 1, 300        |
| Utah.....                    |            |            |            |               |               |
| Nevada.....                  |            |            |            |               |               |
| Idaho.....                   |            |            |            |               | 25, 000       |
| Washington.....              | 1, 500     | 0          | 0          | 135, 000      | 6, 000        |
| Oregon.....                  | 65         | 1, 100     | 10, 100    | 11, 000       |               |
| California.....              | 65, 000    | 39, 000    | 75, 000    | 78, 000       | 80, 000       |

## CHAPTER IV.

### STATISTICAL REVIEW OF HIGHER EDUCATION, 1894-95.

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#### I.—UNIVERSITIES AND COLLEGES.

*Institutions.*—The number of universities and colleges for men and for both sexes from which reports were received at the close of the scholastic year 1894-95 is 481. This number is greater by five than the number of institutions reported the preceding year, the increase being due to the opening of new institutions and to the fact that the Pennsylvania State College, at State College, Pa., which has heretofore been treated as a technological institution, is now included in the table of universities and colleges. The following institutions were suspended during the year 1894-95: Southern Illinois College, Enfield, Ill.; Wichita University, Wichita, Kans.; Western College, Labelle, Mo.; Hopedale Normal College, Hopedale, Ohio, and New Market Polytechnic Institute, Newmarket, Va.

Keuka College, New York; Hillsboro College, Hillsboro, Ohio; Twin Valley College, Germantown, Ohio, and Urbana University, Urbana, Ohio, will hereafter be included among secondary institutions, they having for the time being relinquished college work.

Of the 481 institutions, 77 are located in the North Atlantic Division, 68 in the South Atlantic Division, 87 in the South Central Division, 204 in the North Central Division, and 45 in the Western Division. Only 109 of the institutions are reported as nonsectarian—that is, as not being under the control of any particular religious denomination. The remaining 372 institutions are divided among 28 different denominations, the number of institutions under the control of each denomination being given in Table 1, pp. 153-154.

The number of institutions that admit women to the undergraduate departments is 343, leaving 138 institutions in which a college course is still denied to women. Several of the latter class of institutions have, however, opened the graduate departments to all classes of students. Of the 138 institutions that do not admit women, 58 are under the control of the Roman Catholic Church, which has not, so far as known, opened any of its higher institutions to both sexes. The average number of college students to each institution for men only is 163, while the average number for coeducational institutions is 119. In



this connection it may be well to state that some of the larger Eastern universities, like Yale, Harvard, Columbia, and Princeton, have not yet opened their undergraduate departments to women. Among the institutions that have lately become coeducational are Furman University, Greenville, S. C., which was opened to women in the fall of 1893; Beloit College, Beloit, Wis., whose collegiate department was opened to women on September 17, 1895, and Hiwassee College, Tennessee, which was opened to women in 1894.

The number of institutions that have been opened for instruction in the several decades from 1638 to 1895 is given in Table 3, p. 156. From this table we find that 49 institutions have been opened since the year 1890.

*Professors and instructors.*—The total number of professors and instructors reported by the 481 institutions is 11,582, of which number 10,040 are men and 1,542 women. The proportion of male and female teachers in the several departments by geographical divisions is as follows:

| Division.                   | Preparatory departments. |                          | Collegiate departments.  |                          | Professional departments. |                         | Total number.            |                          |
|-----------------------------|--------------------------|--------------------------|--------------------------|--------------------------|---------------------------|-------------------------|--------------------------|--------------------------|
|                             | Male.                    | Female.                  | Male.                    | Female.                  | Male.                     | Female.                 | Male.                    | Female.                  |
| United States.....          | <i>Per cent.</i><br>69.9 | <i>Per cent.</i><br>30.1 | <i>Per cent.</i><br>89.4 | <i>Per cent.</i><br>10.6 | <i>Per cent.</i><br>98.9  | <i>Per cent.</i><br>1.1 | <i>Per cent.</i><br>86.7 | <i>Per cent.</i><br>13.3 |
| North Atlantic Division ... | 86.8                     | 13.2                     | 97.9                     | 2.1                      | 99.4                      | .6                      | 97.2                     | 2.8                      |
| South Atlantic Division ... | 67.9                     | 32.1                     | 90.7                     | 9.3                      | 100.0                     | .0                      | 87.5                     | 12.5                     |
| South Central Division ...  | 60.1                     | 39.9                     | 84.0                     | 16.0                     | 100.0                     | .0                      | 79.5                     | 20.5                     |
| North Central Division ...  | 69.0                     | 31.0                     | 85.5                     | 14.5                     | 97.8                      | 2.2                     | 82.0                     | 18.0                     |
| Western Division.....       | 68.8                     | 31.2                     | 85.0                     | 15.0                     | 99.1                      | .9                      | 84.1                     | 15.9                     |

The average number of instructors per institution by geographical divisions is as follows: North Atlantic Division, 41.8; South Atlantic Division, 17.1; South Central Division, 15.2; North Central Division, 23.5; Western Division, 24.1; and for the entire country, 24.1.

*Students.*—The total number of students in all departments of the 481 institutions was 149,939, divided as follows: Preparatory departments, 30.8 per cent; collegiate departments, 42.3 per cent; graduate departments, 2.9 per cent; professional departments, 15.7 per cent, and other departments, 8.3 per cent. The classification of students by sex and color in the several departments by geographical divisions was reported as follows:

#### 1. Preparatory departments.

| Division.                    | Male.            | Female.          | White.           | Colored.         |
|------------------------------|------------------|------------------|------------------|------------------|
|                              | <i>Per cent.</i> | <i>Per cent.</i> | <i>Per cent.</i> | <i>Per cent.</i> |
| United States.....           | 68.3             | 31.7             | 92.5             | 7.5              |
| North Atlantic Division..... | 89.4             | 10.6             | 99.9             | .1               |
| South Atlantic Division..... | 71.6             | 28.4             | 69.6             | 30.4             |
| South Central Division.....  | 63.3             | 36.7             | 78.2             | 21.8             |
| North Central Division.....  | 64.5             | 35.5             | 99.3             | .7               |
| Western Division.....        | 63.5             | 36.5             | 99.9             | .1               |

## 2. Collegiate departments.

| Division.                    | Male.            | Female.          | White.           | Colored.         |
|------------------------------|------------------|------------------|------------------|------------------|
|                              | <i>Per cent.</i> | <i>Per cent.</i> | <i>Per cent.</i> | <i>Per cent.</i> |
| United States.....           | 78.4             | 21.6             | 98.7             | 1.3              |
| North Atlantic Division..... | 92.0             | 8.0              | 99.2             | .8               |
| South Atlantic Division..... | 87.4             | 12.6             | 95.8             | 4.2              |
| South Central Division.....  | 74.6             | 25.4             | 97.0             | 3.0              |
| North Central Division.....  | 68.8             | 31.2             | 99.9             | .1               |
| Western Division.....        | 67.0             | 33.0             | 100.0            | .0               |

## 3. Graduate departments.

|                              |      |      |       |    |
|------------------------------|------|------|-------|----|
| United States.....           | 83.2 | 16.8 | 100.0 | 0  |
| North Atlantic Division..... | 89.7 | 10.3 | 100.0 | 0  |
| South Atlantic Division..... | 98.3 | 1.7  | 100.0 | 0  |
| South Central Division.....  | 84.1 | 15.9 | 100.0 | 0  |
| North Central Division.....  | 74.6 | 25.4 | 99.9  | .1 |
| Western Division.....        | 66.8 | 33.2 | 100.0 | 0  |

## 4. Professional departments.

|                              |      |      |       |      |
|------------------------------|------|------|-------|------|
| United States.....           | 96.5 | 3.5  | 97.1  | 2.9  |
| North Atlantic Division..... | 97.4 | 2.6  | 99.3  | .7   |
| South Atlantic Division..... | 98.2 | 1.8  | 85.1  | 14.9 |
| South Central Division.....  | 98.6 | 1.4  | 91.1  | 8.9  |
| North Central Division.....  | 95.8 | 4.2  | 99.8  | .2   |
| Western Division.....        | 89.5 | 10.5 | 100.0 | 0    |

## 5. Students in all departments.

|                              |      |      |       |      |
|------------------------------|------|------|-------|------|
| United States.....           | 75.0 | 25.0 | 95.6  | 4.4  |
| North Atlantic Division..... | 90.9 | 9.1  | 99.4  | .6   |
| South Atlantic Division..... | 80.4 | 19.6 | 79.3  | 20.7 |
| South Central Division.....  | 71.3 | 28.7 | 86.5  | 13.5 |
| North Central Division.....  | 68.3 | 31.7 | 99.4  | .6   |
| Western Division.....        | 65.0 | 35.0 | 100.0 | 0    |

Of the 63,402 students reported as being in the collegiate departments, only 48,324, or 76.2 per cent, were reported in courses leading to a first or bachelor's degree. A number of the universities and colleges of the country maintain pedagogical and business departments. There were enrolled in 1894-95 in such institutions 5,316 pedagogical students and 5,175 commercial students.

*Degrees.*—The number of degrees conferred during the scholastic year was 9,972, excluding honorary degrees. Of the total number, 8,259 were conferred on men and 1,713 on women. The number of A. B. degrees conferred was 4,812, or nearly one-half of the entire number. The number of Ph. D. degrees conferred was 232, of which number 19 were received by women. The number and kind of degrees conferred on men and on women by the institutions of the several States and Territories is given in Tables 7 and 8, pp. 164-166.

The number of honorary degrees conferred was 895, of which number 626 were doctorates. The number of persons who received the D. D. degree was 345, while 207 received the LL. D. degree.

*Property.*—The value of the entire equipment of the institutions is given as \$232,195,461, of which amount \$102,574,808 are reported as permanent endowment funds. The proportion of property held by the institutions of the several divisions is as follows:

| Division.                    | Institutions.    | Fellowships.     | Scholarships.    | Libraries.       | Apparatus.       | Grounds and buildings. | Productive funds. |
|------------------------------|------------------|------------------|------------------|------------------|------------------|------------------------|-------------------|
|                              | <i>Per cent.</i> | <i>Per cent.</i> | <i>Per cent.</i> | <i>Per cent.</i> | <i>Per cent.</i> | <i>Per cent.</i>       | <i>Per cent.</i>  |
| North Atlantic Division..... | 16.0             | 42.9             | 48.7             | 45.4             | 48.2             | 38.7                   | 55.1              |
| South Atlantic Division..... | 14.1             | 9.7              | 10.3             | 10.9             | 7.9              | 10.2                   | 7.5               |
| South Central Division.....  | 18.1             | 6.8              | 16.9             | 6.6              | 5.8              | 8.1                    | 6.8               |
| North Central Division.....  | 42.4             | 38.5             | 22.6             | 32.2             | 32.1             | 31.5                   | 27.0              |
| Western Division.....        | 9.4              | 2.1              | 1.5              | 4.9              | 6.0              | 11.5                   | 3.6               |

From the above tabular statement we find that while the North Atlantic Division contains but 16 per cent of the entire number of institutions, these institutions have 42.9 per cent of the number of fellowships, 48.7 per cent of the scholarships, 45.4 per cent of the volumes in libraries, 48.2 per cent of the value of apparatus, 38.7 per cent of the value of buildings and grounds, and 55.1 per cent of all the productive funds. For the amount or value of property held by any individual institution, reference should be made to the detailed statistical tables in volume 2.

*Benefactions.*—The entire amount of benefactions reported by the several institutions as having been received during the year is \$5,350,963. This amount is less by nearly four million dollars than the amount received by this class of institutions during the preceding year. The institutions receiving the largest amounts of money were the University of Chicago, \$800,000; Columbia College, \$428,484; and the University of Pennsylvania, \$411,479.

*Income.*—The total income reported by the universities and colleges was \$16,783,638, of which amount 37.8 per cent was derived from students' fees, 31.7 per cent from endowments, 17.6 per cent from municipal, State, and national appropriations, and 12.9 per cent from miscellaneous sources. The institutions in the North Central Division received 58.1 per cent of all State appropriations. The proportion of income derived from the various sources by the institutions of the several divisions is as follows:

| Division.                     | Tuition fees.    | Productive funds. | State or municipal appropriations. | United States Government. | Other sources.   |
|-------------------------------|------------------|-------------------|------------------------------------|---------------------------|------------------|
|                               | <i>Per cent.</i> | <i>Per cent.</i>  | <i>Per cent.</i>                   | <i>Per cent.</i>          | <i>Per cent.</i> |
| United States .....           | 37.8             | 31.7              | 13.4                               | 4.2                       | 12.9             |
| North Atlantic Division ..... | 40.6             | 41.1              | 5.1                                | 1.9                       | 11.3             |
| South Atlantic Division ..... | 36.6             | 26.4              | 10.4                               | 11.7                      | 14.9             |
| South Central Division.....   | 44.0             | 32.9              | 5.4                                | 4.6                       | 13.1             |
| North Central Division.....   | 38.0             | 25.5              | 21.9                               | 3.1                       | 11.5             |
| Western Division.....         | 16.6             | 16.1              | 29.6                               | 12.5                      | 25.2             |

The statistics, by States and Territories, concerning universities and colleges are given in the following tables.







TABLE 2.—*Students in coeducational universities and colleges and in colleges for men only.*

| State or Territory.           | Colleges for men.  |           | Coeducational colleges. |           |         |
|-------------------------------|--------------------|-----------|-------------------------|-----------|---------|
|                               | Institu-<br>tions. | Students. | Institu-<br>tions.      | Students. |         |
|                               |                    |           |                         | Male.     | Female. |
| United States .....           | 138                | 22, 503   | 343                     | 27, 222   | 13, 552 |
| North Atlantic Division ..... | 45                 | 12, 736   | 32                      | 5, 213    | 1, 570  |
| South Atlantic Division ..... | 31                 | 3, 967    | 37                      | 1, 510    | a 666   |
| South Central Division .....  | 22                 | 2, 284    | 65                      | 4, 119    | 2, 185  |
| North Central Division .....  | 34                 | 2, 891    | 170                     | 13, 904   | 7, 605  |
| Western Division .....        | 6                  | 625       | 39                      | 2, 476    | 1, 526  |
| North Atlantic Division:      |                    |           |                         |           |         |
| Maine .....                   | 1                  | 229       | 2                       | 270       | 141     |
| New Hampshire .....           | 1                  | 344       | 0                       | 9         | 0       |
| Vermont .....                 | 0                  | 0         | 2                       | 254       | 79      |
| Massachusetts .....           | 6                  | 3, 055    | 3                       | 328       | 263     |
| Rhode Island .....            | 0                  | 0         | 1                       | 534       | 100     |
| Connecticut .....             | 2                  | 1, 936    | 1                       | 219       | 53      |
| New York .....                | 18                 | 5, 486    | 4                       | 1, 374    | 383     |
| New Jersey .....              | 4                  | 1, 318    | 0                       | 0         | 0       |
| Pennsylvania .....            | 13                 | 2, 368    | 19                      | 2, 234    | 551     |
| South Atlantic Division:      |                    |           |                         |           |         |
| Delaware .....                | 1                  | 78        | 0                       | 0         | 0       |
| Maryland .....                | 6                  | 613       | 4                       | 164       | 105     |
| District of Columbia .....    | 2                  | 155       | 3                       | 346       | 107     |
| Virginia .....                | 8                  | 1, 151    | 2                       | 30        | a 20    |
| West Virginia .....           | 0                  | 0         | 4                       | 205       | 63      |
| North Carolina .....          | 6                  | 939       | 7                       | 245       | 111     |
| South Carolina .....          | 4                  | 420       | 5                       | 299       | 35      |
| Georgia .....                 | 3                  | 579       | 8                       | 241       | 160     |
| Florida .....                 | 1                  | 27        | 4                       | 70        | 65      |
| South Central Division:       |                    |           |                         |           |         |
| Kentucky .....                | 4                  | 474       | 11                      | 786       | 406     |
| Tennessee .....               | 6                  | 561       | 18                      | 1, 153    | 593     |
| Alabama .....                 | 3                  | 365       | 6                       | 481       | 131     |
| Mississippi .....             | 2                  | 276       | 3                       | 109       | 74      |
| Louisiana .....               | 4                  | 400       | 5                       | 227       | 208     |
| Texas .....                   | 3                  | 203       | 11                      | 934       | 534     |
| Arkansas .....                | 0                  | 0         | 8                       | 319       | 233     |
| Oklahoma .....                | 0                  | 0         | 1                       | 9         | 1       |
| Indian Territory .....        | 0                  | 0         | 2                       | 11        | 5       |
| North Central Division:       |                    |           |                         |           |         |
| Ohio .....                    | 6                  | 391       | 32                      | 2, 852    | 1, 360  |
| Indiana .....                 | 4                  | 459       | 11                      | 1, 055    | 590     |
| Illinois .....                | 7                  | 742       | 24                      | 2, 335    | 1, 327  |
| Michigan .....                | 1                  | 82        | 10                      | 1, 558    | 866     |
| Wisconsin .....               | 4                  | 322       | 6                       | 1, 024    | 387     |
| Minnesota .....               | 2                  | 206       | 9                       | 1, 115    | 591     |
| Iowa .....                    | 2                  | 121       | 21                      | 1, 210    | 786     |
| Missouri .....                | 5                  | 410       | 23                      | 1, 128    | 692     |
| North Dakota .....            | 0                  | 0         | 3                       | 41        | 26      |
| South Dakota .....            | 0                  | 0         | 6                       | 122       | 57      |
| Nebraska .....                | 1                  | 47        | 9                       | 680       | 491     |
| Kansas .....                  | 2                  | 111       | 16                      | 784       | 432     |
| Western Division:             |                    |           |                         |           |         |
| Montana .....                 | 0                  | 0         | 1                       | 7         | 8       |
| Wyoming .....                 | 0                  | 0         | 1                       | 23        | 10      |
| Colorado .....                | 1                  | 22        | 4                       | 152       | 136     |
| New Mexico .....              | 0                  | 0         | 1                       | 0         | 0       |
| Arizona .....                 | 0                  | 0         | 1                       | 14        | 12      |
| Utah .....                    | 0                  | 0         | 2                       | 82        | 73      |
| Nevada .....                  | 0                  | 0         | 1                       | 50        | 34      |
| Idaho .....                   | 0                  | 0         | 1                       | 20        | 9       |
| Washington .....              | 1                  | 4         | 8                       | 229       | 228     |
| Oregon .....                  | 0                  | 0         | 8                       | 191       | 128     |
| California .....              | 4                  | 599       | 11                      | 1, 708    | 888     |

a Does not include 125 women reported by Randolph-Macon College, Ashland, Va., as having attended Randolph-Macon Woman's College, Lynchburg, Va.

TABLE 3.—*Number of institutions that were opened for instruction in the several decades.*

| State or Territory.           | 1638. | 1693. | 1701. | 1740-1750. | 1750-1760. | 1760-1770. | 1770-1780. | 1780-1790. | 1790-1800. | 1800-1810. | 1810-1820. | 1820-1830. | 1830-1840. | 1840-1850. | 1850-1860. | 1860-1870. | 1870-1880. | 1880-1890. | 1890-1895. |
|-------------------------------|-------|-------|-------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| United States .....           | 1     | 1     | 1     | 3          | 1          | 1          | 3          | 6          | 6          | 9          | 6          | 19         | 30         | 43         | 80         | 82         | 66         | 74         | 49         |
| North Atlantic Division ..... | 1     | ...   | 1     | 2          | 1          | 1          | 2          | 1          | 2          | 5          | 4          | 4          | 7          | 8          | 14         | 13         | 7          | 3          | 1          |
| South Atlantic Division ..... | ...   | 1     | ...   | 1          | ...        | ...        | 1          | 3          | 2          | 3          | ...        | 3          | 9          | 3          | 12         | 11         | 6          | 9          | 4          |
| South Central Division .....  | ...   | ...   | ...   | ...        | ...        | ...        | ...        | 2          | 2          | ...        | 2          | 3          | 2          | 11         | 8          | 13         | 18         | 13         | 13         |
| North Central Division .....  | ...   | ...   | ...   | ...        | ...        | ...        | ...        | ...        | 1          | ...        | ...        | 9          | 12         | 19         | 49         | 39         | 23         | 37         | 19         |
| Western Division .....        | ...   | ...   | ...   | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | 2          | 6          | 6          | 7          | 12         | 12         |
| North Atlantic Division:      |       |       |       |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |
| Maine .....                   | ...   | ...   | ...   | ...        | ...        | ...        | ...        | ...        | 1          | 1          | ...        | ...        | ...        | ...        | ...        | 1          | ...        | ...        | ...        |
| New Hampshire .....           | ...   | ...   | ...   | ...        | ...        | ...        | 1          | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        |
| Vermont .....                 | ...   | ...   | ...   | ...        | ...        | ...        | ...        | ...        | 2          | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        |
| Massachusetts .....           | 1     | ...   | ...   | ...        | ...        | ...        | ...        | 1          | ...        | ...        | 1          | ...        | 1          | 1          | 1          | 1          | 1          | 2          | ...        |
| Rhode Island .....            | ...   | ...   | ...   | ...        | 1          | ...        | ...        | ...        | ...        | ...        | ...        | 1          | 1          | ...        | ...        | ...        | ...        | ...        | ...        |
| Connecticut .....             | ...   | ...   | 1     | ...        | ...        | ...        | ...        | ...        | ...        | ...        | 1          | 1          | ...        | ...        | ...        | ...        | ...        | ...        | ...        |
| New York .....                | ...   | ...   | ...   | 1          | ...        | ...        | ...        | 1          | ...        | 1          | 2          | ...        | 1          | 3          | 7          | 3          | 3          | ...        | ...        |
| New Jersey .....              | ...   | ...   | ...   | 1          | ...        | 1          | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | 1          | 1          | ...        | ...        | ...        |
| Pennsylvania .....            | ...   | ...   | 1     | ...        | ...        | ...        | 1          | ...        | 2          | 2          | ...        | 5          | 4          | 5          | 7          | 3          | 1          | 1          | ...        |
| South Atlantic Division:      |       |       |       |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |
| Delaware .....                | ...   | ...   | ...   | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | 2          | 2          | 2          | 1          | ...        | ...        |
| Maryland .....                | ...   | ...   | ...   | ...        | ...        | ...        | 2          | ...        | 1          | ...        | ...        | ...        | ...        | 2          | 2          | 2          | ...        | ...        | ...        |
| District of Columbia .....    | ...   | ...   | ...   | ...        | ...        | ...        | ...        | 1          | ...        | ...        | ...        | 2          | ...        | ...        | ...        | ...        | ...        | ...        | ...        |
| Virginia .....                | 1     | ...   | 1     | ...        | ...        | 1          | ...        | ...        | ...        | ...        | 1          | 3          | ...        | 1          | 1          | 1          | 1          | 1          | ...        |
| West Virginia .....           | ...   | ...   | ...   | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | 1          | ...        | 2          | ...        | ...        | ...        | ...        |
| North Carolina .....          | ...   | ...   | ...   | ...        | ...        | ...        | ...        | 1          | ...        | ...        | ...        | 3          | ...        | 4          | 2          | 2          | ...        | 1          | ...        |
| South Carolina .....          | ...   | ...   | ...   | ...        | ...        | ...        | 1          | ...        | 1          | ...        | ...        | 1          | ...        | 3          | 1          | ...        | 2          | ...        | ...        |
| Georgia .....                 | ...   | ...   | ...   | ...        | ...        | ...        | ...        | 1          | ...        | 1          | ...        | 2          | ...        | 1          | 2          | 1          | 2          | 2          | ...        |
| Florida .....                 | ...   | ...   | ...   | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | 1          | ...        | ...        | 3          | 1          | ...        |
| South Central Division:       |       |       |       |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |
| Kentucky .....                | ...   | ...   | ...   | ...        | ...        | ...        | ...        | ...        | ...        | 1          | 2          | 1          | 1          | 3          | 1          | 4          | 2          | ...        | ...        |
| Tennessee .....               | ...   | ...   | ...   | ...        | ...        | ...        | 2          | 2          | ...        | 1          | ...        | 5          | 1          | 6          | 5          | 1          | 1          | 1          | ...        |
| Alabama .....                 | ...   | ...   | ...   | ...        | ...        | ...        | ...        | ...        | ...        | ...        | 1          | 1          | 1          | 1          | 1          | 1          | 2          | 2          | ...        |
| Mississippi .....             | ...   | ...   | ...   | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | 1          | 1          | 2          | ...        | ...        | ...        | ...        |
| Louisiana .....               | ...   | ...   | ...   | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | 2          | 1          | 3          | 3          | ...        | ...        | ...        |
| Texas .....                   | ...   | ...   | ...   | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | 1          | 1          | 1          | 3          | 4          | 4          | ...        |
| Arkansas .....                | ...   | ...   | ...   | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | 2          | 3          | 3          | ...        |
| Oklahoma .....                | ...   | ...   | ...   | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | 1          | ...        |
| Indian Territory .....        | ...   | ...   | ...   | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | 1          | 1          | ...        |
| North Central Division:       |       |       |       |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |
| Ohio .....                    | ...   | ...   | ...   | ...        | ...        | ...        | ...        | ...        | 1          | ...        | 4          | 5          | 6          | 5          | 3          | 8          | 3          | 3          | ...        |
| Indiana .....                 | ...   | ...   | ...   | ...        | ...        | ...        | ...        | ...        | ...        | ...        | 1          | 5          | 3          | 6          | 12         | 5          | ...        | 4          | ...        |
| Illinois .....                | ...   | ...   | ...   | ...        | ...        | ...        | ...        | ...        | ...        | ...        | 3          | 1          | ...        | 2          | 4          | 2          | 1          | ...        | ...        |
| Michigan .....                | ...   | ...   | ...   | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | 3          | 4          | 2          | ...        | ...        | ...        | ...        |
| Wisconsin .....               | ...   | ...   | ...   | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | 1          | 3          | 3          | 3          | 1          | ...        |
| Minnesota .....               | ...   | ...   | ...   | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | 6          | 7          | 3          | 2          | 3          | ...        |
| Iowa .....                    | ...   | ...   | ...   | ...        | ...        | ...        | ...        | ...        | ...        | ...        | 1          | 1          | 2          | 3          | 6          | 4          | ...        | ...        | ...        |
| Missouri .....                | ...   | ...   | ...   | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | 2          | 4          | ...        |
| North Dakota .....            | ...   | ...   | ...   | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | 5          | 1          | ...        |
| South Dakota .....            | ...   | ...   | ...   | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | 3          | 7          | ...        |
| Nebraska .....                | ...   | ...   | ...   | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        |
| Kansas .....                  | ...   | ...   | ...   | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | 3          | 5          | ...        | 7          | 3          | ...        |
| Western Division:             |       |       |       |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |            |
| Montana .....                 | ...   | ...   | ...   | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | 1          | ...        |
| Wyoming .....                 | ...   | ...   | ...   | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | 1          | ...        |
| Colorado .....                | ...   | ...   | ...   | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | 2          | 3          | ...        |
| New Mexico .....              | ...   | ...   | ...   | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        |
| Arizona .....                 | ...   | ...   | ...   | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | 1          |
| Utah .....                    | ...   | ...   | ...   | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | 1          | ...        | 1          | ...        | ...        | ...        |
| Nevada .....                  | ...   | ...   | ...   | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | 1          | ...        | ...        |
| Idaho .....                   | ...   | ...   | ...   | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | 1          |
| Washington .....              | ...   | ...   | ...   | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | 1          | 1          | ...        | 2          | 5          | ...        |
| Oregon .....                  | ...   | ...   | ...   | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | 2          | 1          | 1          | 1          | 1          | 2          | ...        |
| California .....              | ...   | ...   | ...   | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | ...        | 3          | 4          | ...        | 4          | 2          | ...        |

TABLE 4.—*Professors and instructors.*

| State or Territory.        | Number of institutions. | Preparatory departments. |         | Collegiate departments. |         | Professional departments. |         | Total number. |         |
|----------------------------|-------------------------|--------------------------|---------|-------------------------|---------|---------------------------|---------|---------------|---------|
|                            |                         | Male.                    | Female. | Male.                   | Female. | Male.                     | Female. | Male.         | Female. |
| United States .....        | 481                     | 1,866                    | 803     | 5,892                   | 696     | 3,089                     | 34      | 10,040        | 1,512   |
| North Atlantic Division... | 77                      | 296                      | 45      | 1,861                   | 40      | 1,039                     | 6       | 3,124         | 91      |
| South Atlantic Division... | 68                      | 178                      | 84      | 652                     | 67      | 258                       | 0       | 1,019         | 145     |
| South Central Division...  | 87                      | 220                      | 146     | 589                     | 112     | 346                       | 0       | 1,054         | 272     |
| North Central Division...  | 204                     | 965                      | 434     | 2,281                   | 387     | 1,118                     | 25      | 3,929         | 861     |
| Western Division .....     | 45                      | 207                      | 94      | 509                     | 90      | 328                       | 3       | 914           | 173     |
| North Atlantic Division:   |                         |                          |         |                         |         |                           |         |               |         |
| Maine .....                | 3                       | 0                        | 0       | 40                      | 0       | 19                        | 0       | 58            | 0       |
| New Hampshire .....        | 1                       | 0                        | 0       | 31                      | 0       | 14                        | 0       | 45            | 0       |
| Vermont .....              | 2                       | 0                        | 0       | 35                      | 0       | 22                        | 0       | 57            | 0       |
| Massachusetts .....        | 9                       | 26                       | 2       | 321                     | 3       | 279                       | 6       | 647           | 9       |
| Rhode Island .....         | 1                       | 0                        | 0       | 83                      | 0       | 0                         | 0       | 83            | 0       |
| Connecticut .....          | 3                       | 0                        | 0       | 171                     | 0       | 71                        | 0       | 257           | 0       |
| New York .....             | 22                      | 153                      | 9       | 595                     | 5       | 328                       | 0       | 1,050         | 20      |
| New Jersey .....           | 4                       | 19                       | 4       | 123                     | 0       | 3                         | 0       | 127           | 4       |
| Pennsylvania .....         | 32                      | 98                       | 30      | 462                     | 32      | 303                       | 0       | 800           | 58      |
| South Atlantic Division:   |                         |                          |         |                         |         |                           |         |               |         |
| Delaware .....             | 1                       | 0                        | 0       | 12                      | 0       | 0                         | 0       | 12            | 0       |
| Maryland .....             | 10                      | 42                       | 10      | 144                     | 11      | 20                        | 0       | 194           | 16      |
| District of Columbia ..    | 5                       | 31                       | 0       | 112                     | 4       | 150                       | 0       | 287           | 9       |
| Virginia .....             | 10                      | 23                       | 3       | 113                     | 8       | 25                        | 0       | 158           | 12      |
| West Virginia .....        | 4                       | 3                        | 1       | 26                      | 1       | 3                         | 0       | 34            | 3       |
| North Carolina .....       | 13                      | 23                       | 15      | 92                      | 8       | 28                        | 0       | 129           | 25      |
| South Carolina .....       | 9                       | 17                       | 8       | 63                      | 3       | 4                         | 0       | 73            | 13      |
| Georgia .....              | 11                      | 24                       | 25      | 65                      | 19      | 28                        | 0       | 103           | 40      |
| Florida .....              | 5                       | 15                       | 22      | 25                      | 13      | 0                         | 0       | 29            | 27      |
| South Central Division:    |                         |                          |         |                         |         |                           |         |               |         |
| Kentucky .....             | 15                      | 32                       | 17      | 90                      | 13      | 41                        | 0       | 153           | 33      |
| Tennessee .....            | 24                      | 67                       | 46      | 184                     | 41      | 210                       | 0       | 412           | 87      |
| Alabama .....              | 9                       | 12                       | 7       | 63                      | 5       | 8                         | 0       | 83            | 12      |
| Mississippi .....          | 5                       | 10                       | 5       | 30                      | 1       | 1                         | 0       | 38            | 7       |
| Louisiana .....            | 9                       | 29                       | 19      | 80                      | 19      | 40                        | 0       | 143           | 37      |
| Texas .....                | 14                      | 51                       | 33      | 96                      | 15      | 45                        | 0       | 174           | 58      |
| Arkansas .....             | 8                       | 10                       | 12      | 36                      | 12      | 1                         | 0       | 41            | 29      |
| Oklahoma .....             | 1                       | 5                        | 0       | 5                       | 0       | 0                         | 0       | 5             | 0       |
| Indian Territory .....     | 2                       | 4                        | 7       | 5                       | 6       | 0                         | 0       | 5             | 9       |
| North Central Division:    |                         |                          |         |                         |         |                           |         |               |         |
| Ohio .....                 | 38                      | 180                      | 67      | 463                     | 50      | 216                       | 0       | 743           | 151     |
| Indiana .....              | 15                      | 74                       | 21      | 199                     | 20      | 32                        | 1       | 294           | 45      |
| Illinois .....             | 31                      | 173                      | 73      | 462                     | 54      | 330                       | 20      | 896           | 164     |
| Michigan .....             | 11                      | 42                       | 21      | 178                     | 20      | 100                       | 2       | 293           | 60      |
| Wisconsin .....            | 10                      | 53                       | 14      | 145                     | 19      | 21                        | 0       | 198           | 23      |
| Minnesota .....            | 11                      | 42                       | 13      | 159                     | 24      | 89                        | 0       | 258           | 38      |
| Iowa .....                 | 23                      | 68                       | 52      | 173                     | 49      | 136                       | 2       | 327           | 102     |
| Missouri .....             | 28                      | 102                      | 81      | 219                     | 53      | 90                        | 0       | 378           | 116     |
| North Dakota .....         | 3                       | 18                       | 8       | 19                      | 8       | 0                         | 0       | 21            | 10      |
| South Dakota .....         | 6                       | 30                       | 14      | 37                      | 13      | 0                         | 0       | 46            | 22      |
| Nebraska .....             | 10                      | 80                       | 30      | 138                     | 37      | 76                        | 0       | 246           | 61      |
| Kansas .....               | 18                      | 103                      | 35      | 149                     | 40      | 28                        | 0       | 229           | 69      |
| Western Division:          |                         |                          |         |                         |         |                           |         |               |         |
| Montana .....              | 1                       | 5                        | 2       | 5                       | 4       | 0                         | 0       | 5             | 4       |
| Wyoming .....              | 1                       | 10                       | 2       | 10                      | 2       | 0                         | 0       | 10            | 2       |
| Colorado .....             | 5                       | 49                       | 11      | 55                      | 10      | 100                       | 0       | 172           | 14      |
| New Mexico .....           | 1                       | 4                        | 4       | 0                       | 0       | 0                         | 0       | 4             | 4       |
| Arizona .....              | 1                       | 2                        | 1       | 8                       | 1       | 0                         | 0       | 8             | 1       |
| Utah .....                 | 2                       | 19                       | 4       | 27                      | 4       | 0                         | 0       | 27            | 4       |
| Nevada .....               | 1                       | 16                       | 3       | 16                      | 0       | 0                         | 0       | 16            | 3       |
| Idaho .....                | 1                       | 10                       | 3       | 9                       | 2       | 0                         | 0       | 11            | 3       |
| Washington .....           | 9                       | 26                       | 19      | 53                      | 20      | 54                        | 0       | 57            | 29      |
| Oregon .....               | 8                       | 19                       | 15      | 38                      | 15      | 54                        | 0       | 114           | 42      |
| California .....           | 15                      | 63                       | 33      | 288                     | 32      | 174                       | 3       | 490           | 67      |



TABLE 5.—Students in universities and colleges.

| State or Territory.       | Preparatory departments. |         |          |         | Collegiate departments. |         |        |         |
|---------------------------|--------------------------|---------|----------|---------|-------------------------|---------|--------|---------|
|                           | White.                   |         | Colored. |         | Total.                  |         | White. |         |
|                           | Male.                    | Female. | Male.    | Female. | Male.                   | Female. | Male.  | Female. |
| United States.....        | 29,005                   | 13,017  | 1,880    | 1,596   | 31,485                  | 14,613  | 49,077 | 13,498  |
| North Atlantic Division:  |                          |         |          |         |                         |         |        |         |
| Maine.....                | 0                        | 0       | 0        | 0       | 0                       | 0       | 497    | 140     |
| New Hampshire.....        | 0                        | 0       | 0        | 0       | 0                       | 0       | 344    | 0       |
| Vermont.....              | 0                        | 0       | 0        | 0       | 0                       | 0       | 253    | 78      |
| Massachusetts.....        | 368                      | 16      | 0        | 0       | 368                     | 16      | 3,378  | 263     |
| Rhode Island.....         | 0                        | 0       | 0        | 0       | 0                       | 0       | 332    | 100     |
| Connecticut.....          | 0                        | 0       | 0        | 0       | 0                       | 0       | 2,155  | 53      |
| New York.....             | 3,214                    | 48      | 0        | 0       | 3,214                   | 48      | 4,856  | 382     |
| New Jersey.....           | 206                      | 29      | 2        | 0       | 208                     | 29      | 1,318  | 0       |
| Pennsylvania.....         | 1,701                    | 560     | 1        | 0       | 1,702                   | 560     | 4,465  | 551     |
| South Atlantic Division:  |                          |         |          |         |                         |         |        |         |
| Delaware.....             | 0                        | 0       | 0        | 0       | 0                       | 0       | 78     | 0       |
| Maryland.....             | 597                      | 71      | 36       | 5       | 633                     | 76      | 771    | 104     |
| District of Columbia..... | 331                      | 2       | 75       | 11      | 406                     | 13      | 471    | 102     |
| Virginia.....             | 404                      | 70      | 0        | 0       | 404                     | 70      | 1,181  | 145     |
| West Virginia.....        | 140                      | 17      | 0        | 0       | 140                     | 17      | 205    | 63      |
| North Carolina.....       | 337                      | 27      | 214      | 24      | 551                     | 271     | 1,080  | 99      |
| South Carolina.....       | 181                      | 8       | 358      | 251     | 539                     | 259     | 609    | 29      |
| Georgia.....              | 444                      | 194     | 251      | 307     | 705                     | 561     | 779    | 124     |
| Florida.....              | 274                      | 243     | 0        | 0       | 274                     | 243     | 97     | 65      |
| South Central Division:   |                          |         |          |         |                         |         |        |         |
| Kentucky.....             | 730                      | 355     | 21       | 19      | 751                     | 374     | 1,249  | 402     |
| Tennessee.....            | 1,354                    | 694     | 148      | 80      | 1,502                   | 774     | 1,586  | 558     |
| Alabama.....              | 234                      | 139     | 323      | 70      | 656                     | 393     | 814    | 128     |
| Mississippi.....          | 174                      | 24      | 107      | 117     | 281                     | 241     | 469    | 74      |
| Louisiana.....            | 426                      | 114     | 182      | 217     | 608                     | 331     | 594    | 33      |
| Texas.....                | 868                      | 338     | 180      | 254     | 1,048                   | 562     | 1,130  | 531     |
| Arkansas.....             | 281                      | 294     | 133      | 164     | 414                     | 398     | 305    | 232     |
| Oklahoma.....             | 92                       | 84      | 0        | 0       | 92                      | 84      | 9      | 1       |
| Indian Territory.....     | 66                       | 79      | 0        | 0       | 66                      | 79      | 11     | 0       |
| North Central Division:   |                          |         |          |         |                         |         |        |         |
| Ohio.....                 | 2,985                    | 1,439   | 50       | 84      | 3,035                   | 1,523   | 3,171  | 1,302   |
| Indiana.....              | 966                      | 337     | 1        | 1       | 967                     | 338     | 1,513  | 590     |
| United States.....        | 29,005                   | 13,017  | 1,880    | 1,596   | 31,485                  | 14,613  | 49,077 | 13,498  |
| North Atlantic Division:  |                          |         |          |         |                         |         |        |         |
| Maine.....                | 0                        | 0       | 0        | 0       | 0                       | 0       | 497    | 140     |
| New Hampshire.....        | 0                        | 0       | 0        | 0       | 0                       | 0       | 344    | 0       |
| Vermont.....              | 0                        | 0       | 0        | 0       | 0                       | 0       | 253    | 78      |
| Massachusetts.....        | 368                      | 16      | 0        | 0       | 368                     | 16      | 3,378  | 263     |
| Rhode Island.....         | 0                        | 0       | 0        | 0       | 0                       | 0       | 332    | 100     |
| Connecticut.....          | 0                        | 0       | 0        | 0       | 0                       | 0       | 2,155  | 53      |
| New York.....             | 3,214                    | 48      | 0        | 0       | 3,214                   | 48      | 4,856  | 382     |
| New Jersey.....           | 206                      | 29      | 2        | 0       | 208                     | 29      | 1,318  | 0       |
| Pennsylvania.....         | 1,701                    | 560     | 1        | 0       | 1,702                   | 560     | 4,465  | 551     |
| South Atlantic Division:  |                          |         |          |         |                         |         |        |         |
| Delaware.....             | 0                        | 0       | 0        | 0       | 0                       | 0       | 78     | 0       |
| Maryland.....             | 597                      | 71      | 36       | 5       | 633                     | 76      | 771    | 104     |
| District of Columbia..... | 331                      | 2       | 75       | 11      | 406                     | 13      | 471    | 102     |
| Virginia.....             | 404                      | 70      | 0        | 0       | 404                     | 70      | 1,181  | 145     |
| West Virginia.....        | 140                      | 17      | 0        | 0       | 140                     | 17      | 205    | 63      |
| North Carolina.....       | 337                      | 27      | 214      | 24      | 551                     | 271     | 1,080  | 99      |
| South Carolina.....       | 181                      | 8       | 358      | 251     | 539                     | 259     | 609    | 29      |
| Georgia.....              | 444                      | 194     | 251      | 307     | 705                     | 561     | 779    | 124     |
| Florida.....              | 274                      | 243     | 0        | 0       | 274                     | 243     | 97     | 65      |
| South Central Division:   |                          |         |          |         |                         |         |        |         |
| Kentucky.....             | 730                      | 355     | 21       | 19      | 751                     | 374     | 1,249  | 402     |
| Tennessee.....            | 1,354                    | 694     | 148      | 80      | 1,502                   | 774     | 1,586  | 558     |
| Alabama.....              | 234                      | 139     | 323      | 70      | 656                     | 393     | 814    | 128     |
| Mississippi.....          | 174                      | 24      | 107      | 117     | 281                     | 241     | 469    | 74      |
| Louisiana.....            | 426                      | 114     | 182      | 217     | 608                     | 331     | 594    | 33      |
| Texas.....                | 868                      | 338     | 180      | 254     | 1,048                   | 562     | 1,130  | 531     |
| Arkansas.....             | 281                      | 294     | 133      | 164     | 414                     | 398     | 305    | 232     |
| Oklahoma.....             | 92                       | 84      | 0        | 0       | 92                      | 84      | 9      | 1       |
| Indian Territory.....     | 66                       | 79      | 0        | 0       | 66                      | 79      | 11     | 0       |
| North Central Division:   |                          |         |          |         |                         |         |        |         |
| Ohio.....                 | 2,985                    | 1,439   | 50       | 84      | 3,035                   | 1,523   | 3,171  | 1,302   |
| Indiana.....              | 966                      | 337     | 1        | 1       | 967                     | 338     | 1,513  | 590     |

|                   |       |       |   |   |       |       |       |       |   |   |       |       |
|-------------------|-------|-------|---|---|-------|-------|-------|-------|---|---|-------|-------|
| Illinois.....     | 2,783 | 1,376 | 9 | 5 | 2,792 | 1,381 | 3,075 | 1,327 | 2 | 0 | 3,077 | 1,327 |
| Michigan.....     | 977   | 577   | 1 | 1 | 978   | 578   | 1,039 | 865   | 1 | 1 | 1,040 | 866   |
| Wisconsin.....    | 733   | 185   | 3 | 0 | 736   | 185   | 1,344 | 337   | 2 | 0 | 1,346 | 387   |
| Minnesota.....    | 463   | 259   | 0 | 0 | 463   | 259   | 1,321 | 591   | 0 | 0 | 1,321 | 591   |
| Iowa.....         | 1,215 | 1,068 | 2 | 3 | 1,217 | 1,011 | 1,328 | 785   | 3 | 1 | 1,331 | 786   |
| Missouri.....     | 2,095 | 1,095 | 0 | 0 | 2,095 | 1,096 | 1,538 | 692   | 0 | 0 | 1,538 | 692   |
| North Dakota..... | 191   | 180   | 1 | 0 | 192   | 180   | 41    | 26    | 0 | 0 | 41    | 26    |
| South Dakota..... | 305   | 300   | 0 | 0 | 305   | 300   | 122   | 57    | 0 | 0 | 122   | 57    |
| Nebraska.....     | 892   | 617   | 0 | 0 | 892   | 617   | 736   | 491   | 1 | 0 | 737   | 491   |
| Kansas.....       | 1,053 | 637   | 3 | 2 | 1,056 | 639   | 893   | 430   | 2 | 2 | 895   | 432   |
| Western Division: |       |       |   |   |       |       |       |       |   |   |       |       |
| Montana.....      | 14    | 12    | 0 | 0 | 14    | 12    | 7     | 8     | 0 | 0 | 7     | 8     |
| Wyoming.....      | 35    | 37    | 1 | 0 | 36    | 37    | 23    | 10    | 0 | 0 | 23    | 10    |
| Colorado.....     | 328   | 217   | 1 | 0 | 329   | 217   | 174   | 136   | 0 | 0 | 174   | 136   |
| New Mexico.....   | 41    | 52    | 0 | 0 | 41    | 52    | 0     | 0     | 0 | 0 | 0     | 0     |
| Arizona.....      | 10    | 17    | 0 | 0 | 10    | 17    | 14    | 12    | 0 | 0 | 14    | 12    |
| Utah.....         | 327   | 263   | 0 | 0 | 327   | 263   | 82    | 73    | 0 | 0 | 82    | 73    |
| Nevada.....       |       |       |   |   |       |       | 50    | 34    | 0 | 0 | 50    | 34    |
| Idaho.....        | 117   | 73    | 0 | 1 | 117   | 74    | 20    | 9     | 0 | 0 | 20    | 9     |
| Washington.....   | 196   | 83    | 0 | 0 | 196   | 83    | 233   | 228   | 0 | 0 | 233   | 228   |
| Oregon.....       | 438   | 360   | 0 | 0 | 438   | 360   | 191   | 138   | 0 | 0 | 191   | 138   |
| California.....   | 1,019 | 336   | 1 | 0 | 1,020 | 336   | 2,306 | 888   | 1 | 0 | 2,307 | 888   |



| North Central Division: | 82  | 31  | 0 | 0 | 0 | 82  | 31  | 183 | 22 | 0 | 0 | 0 | 183 | 22 | 1,213 | 1   | 10 | 0 | 1,223 | 1   |
|-------------------------|-----|-----|---|---|---|-----|-----|-----|----|---|---|---|-----|----|-------|-----|----|---|-------|-----|
| Ohio.....               | 86  | 22  | 0 | 0 | 0 | 86  | 22  | 16  | 8  | 0 | 0 | 0 | 16  | 8  | 240   | 16  | 2  | 0 | 292   | 16  |
| Indiana.....            | 391 | 180 | 0 | 0 | 0 | 391 | 180 | 44  | 8  | 0 | 0 | 0 | 44  | 8  | 3,323 | 145 | 2  | 0 | 3,323 | 145 |
| Illinois.....           | 65  | 13  | 0 | 0 | 0 | 66  | 13  | 20  | 6  | 0 | 0 | 0 | 20  | 6  | 1,319 | 102 | 0  | 0 | 1,319 | 102 |
| Michigan.....           | 49  | 9   | 0 | 0 | 0 | 49  | 9   | 25  | 9  | 0 | 0 | 0 | 25  | 9  | 445   | 6   | 0  | 0 | 445   | 6   |
| Wisconsin.....          | 63  | 31  | 0 | 0 | 0 | 63  | 31  | 0   | 0  | 0 | 0 | 0 | 0   | 0  | 729   | 31  | 4  | 0 | 733   | 31  |
| Minnesota.....          | 47  | 24  | 0 | 0 | 0 | 47  | 24  | 17  | 11 | 0 | 0 | 0 | 17  | 11 | 958   | 74  | 1  | 0 | 959   | 74  |
| Iowa.....               | 23  | 5   | 0 | 0 | 0 | 23  | 5   | 0   | 0  | 0 | 0 | 0 | 0   | 0  | 637   | 2   | 0  | 0 | 637   | 2   |
| Missouri.....           | 3   | 2   | 0 | 0 | 0 | 3   | 2   | 0   | 0  | 0 | 0 | 0 | 0   | 0  | 0     | 0   | 0  | 0 | 0     | 0   |
| North Dakota.....       | 3   | 2   | 0 | 0 | 0 | 3   | 2   | 2   | 1  | 0 | 0 | 0 | 2   | 1  | 0     | 0   | 0  | 0 | 0     | 0   |
| South Dakota.....       | 41  | 20  | 0 | 0 | 0 | 41  | 20  | 11  | 2  | 0 | 0 | 0 | 11  | 2  | 372   | 30  | 1  | 0 | 373   | 30  |
| Nebraska.....           | 20  | 5   | 0 | 0 | 0 | 20  | 5   | 22  | 2  | 0 | 0 | 0 | 22  | 2  | 379   | 9   | 3  | 0 | 182   | 9   |
| Kansas.....             | 0   | 0   | 0 | 0 | 0 | 0   | 0   | 0   | 0  | 0 | 0 | 0 | 0   | 0  | 0     | 0   | 0  | 0 | 0     | 0   |
| Western Division:       | 0   | 0   | 0 | 0 | 0 | 0   | 0   | 0   | 0  | 0 | 0 | 0 | 0   | 0  | 0     | 0   | 0  | 0 | 0     | 0   |
| Montana.....            | 0   | 0   | 0 | 0 | 0 | 0   | 0   | 0   | 0  | 0 | 0 | 0 | 0   | 0  | 0     | 0   | 0  | 0 | 0     | 0   |
| Wyoming.....            | 17  | 4   | 0 | 0 | 0 | 17  | 4   | 6   | 0  | 0 | 0 | 0 | 6   | 0  | 205   | 25  | 0  | 0 | 205   | 25  |
| Colorado.....           | 0   | 0   | 0 | 0 | 0 | 0   | 0   | 0   | 0  | 0 | 0 | 0 | 0   | 0  | 0     | 0   | 0  | 0 | 0     | 0   |
| New Mexico.....         | 0   | 0   | 0 | 0 | 0 | 0   | 0   | 0   | 0  | 0 | 0 | 0 | 0   | 0  | 0     | 0   | 0  | 0 | 0     | 0   |
| Arizona.....            | 0   | 0   | 0 | 0 | 0 | 0   | 0   | 0   | 0  | 0 | 0 | 0 | 0   | 0  | 0     | 0   | 0  | 0 | 0     | 0   |
| Utah.....               | 3   | 0   | 0 | 0 | 0 | 3   | 0   | 0   | 0  | 0 | 0 | 0 | 0   | 0  | 0     | 0   | 0  | 0 | 0     | 0   |
| Nevada.....             | 0   | 0   | 0 | 0 | 0 | 0   | 0   | 0   | 0  | 0 | 0 | 0 | 0   | 0  | 0     | 0   | 0  | 0 | 0     | 0   |
| Idaho.....              | 0   | 0   | 0 | 0 | 0 | 0   | 0   | 0   | 0  | 0 | 0 | 0 | 0   | 0  | 0     | 0   | 0  | 0 | 0     | 0   |
| Washington.....         | 4   | 6   | 0 | 0 | 0 | 4   | 6   | 1   | 0  | 0 | 0 | 0 | 1   | 0  | 21    | 5   | 0  | 0 | 21    | 5   |
| Oregon.....             | 10  | 1   | 0 | 0 | 0 | 10  | 1   | 1   | 0  | 0 | 0 | 0 | 1   | 0  | 151   | 14  | 0  | 0 | 151   | 14  |
| California.....         | 115 | 68  | 0 | 0 | 0 | 115 | 68  | 2   | 0  | 0 | 0 | 0 | 2   | 0  | 758   | 89  | 0  | 0 | 758   | 89  |

Western Division:



TABLE 5.—*Students in universities and colleges—Continued.*

| State or Territory.          | Total number. |         |          |         |         |         |
|------------------------------|---------------|---------|----------|---------|---------|---------|
|                              | White.        |         | Colored. |         | Total.  |         |
|                              | Male.         | Female. | Male.    | Female. | Male.   | Female. |
| United States.....           | 108,702       | 34,667  | 3,801    | 2,769   | 112,503 | 37,436  |
| North Atlantic Division..... | 31,977        | 3,290   | 203      | 3       | 32,180  | 3,293   |
| South Atlantic Division..... | 10,279        | 1,706   | 1,881    | 1,257   | 12,160  | 2,963   |
| South Central Division.....  | 13,432        | 4,661   | 1,468    | 1,349   | 14,900  | 6,010   |
| North Central Division.....  | 45,910        | 21,266  | 245      | 159     | 46,155  | 21,425  |
| Western Division.....        | 7,104         | 3,834   | 4        | 1       | 7,108   | 3,835   |
| North Atlantic Division:     |               |         |          |         |         |         |
| Maine.....                   | 631           | 142     | 2        | 1       | 633     | 143     |
| New Hampshire.....           | 509           | 0       | 0        | 0       | 509     | 0       |
| Vermont.....                 | 439           | 78      | 3        | 1       | 442     | 79      |
| Massachusetts.....           | 5,998         | 404     | 10       | 0       | 6,008   | 404     |
| Rhode Island.....            | 631           | 109     | 2        | 0       | 633     | 109     |
| Connecticut.....             | 2,649         | 113     | 0        | 0       | 2,649   | 113     |
| New York.....                | 10,699        | 923     | 6        | 1       | 10,705  | 924     |
| New Jersey.....              | 1,682         | 29      | 2        | 0       | 1,684   | 29      |
| Pennsylvania.....            | 8,739         | 1,402   | 178      | 0       | 8,917   | 1,402   |
| South Atlantic Division:     |               |         |          |         |         |         |
| Delaware.....                | 78            | 0       | 0        | 0       | 78      | 0       |
| Maryland.....                | 1,821         | 197     | 105      | 57      | 1,926   | 254     |
| District of Columbia.....    | 1,849         | 120     | 352      | 140     | 2,201   | 260     |
| Virginia.....                | 1,991         | 244     | 0        | 0       | 1,991   | 244     |
| West Virginia.....           | 470           | 141     | 0        | 0       | 470     | 141     |
| North Carolina.....          | 1,536         | 337     | 533      | 237     | 2,069   | 574     |
| South Carolina.....          | 810           | 39      | 473      | 350     | 1,283   | 389     |
| Georgia.....                 | 1,353         | 320     | 418      | 473     | 1,771   | 793     |
| Florida.....                 | 371           | 308     | 0        | 0       | 371     | 308     |
| South Central Division:      |               |         |          |         |         |         |
| Kentucky.....                | 2,466         | 758     | 32       | 23      | 2,498   | 781     |
| Tennessee.....               | 4,402         | 1,479   | 508      | 474     | 5,000   | 1,953   |
| Alabama.....                 | 1,122         | 272     | 91       | 73      | 1,213   | 345     |
| Mississippi.....             | 706           | 102     | 113      | 117     | 819     | 219     |
| Louisiana.....               | 1,461         | 321     | 274      | 257     | 1,735   | 578     |
| Texas.....                   | 2,447         | 1,038   | 213      | 240     | 2,660   | 1,278   |
| Arkansas.....                | 650           | 522     | 147      | 165     | 797     | 687     |
| Oklahoma.....                | 101           | 85      | 0        | 0       | 101     | 85      |
| Indian Territory.....        | 77            | 84      | 0        | 0       | 77      | 84      |
| North Central Division:      |               |         |          |         |         |         |
| Ohio.....                    | 8,123         | 4,199   | 200      | 140     | 8,323   | 4,339   |
| Indiana.....                 | 2,979         | 1,095   | 4        | 1       | 2,983   | 1,095   |
| Illinois.....                | 10,873        | 3,856   | 11       | 5       | 10,884  | 3,861   |
| Michigan.....                | 4,181         | 2,071   | 3        | 2       | 4,184   | 2,073   |
| Wisconsin.....               | 2,641         | 639     | 5        | 0       | 2,646   | 639     |
| Minnesota.....               | 2,708         | 1,120   | 4        | 0       | 2,712   | 1,120   |
| Iowa.....                    | 4,111         | 2,493   | 7        | 4       | 4,118   | 2,497   |
| Missouri.....                | 4,659         | 2,082   | 0        | 0       | 4,659   | 2,082   |
| North Dakota.....            | 235           | 208     | 1        | 0       | 236     | 208     |
| South Dakota.....            | 498           | 456     | 0        | 1       | 498     | 457     |
| Nebraska.....                | 2,177         | 1,263   | 2        | 0       | 2,179   | 1,263   |
| Kansas.....                  | 2,725         | 1,784   | 8        | 6       | 2,733   | 1,790   |
| Western Division:            |               |         |          |         |         |         |
| Montana.....                 | 21            | 20      | 0        | 0       | 21      | 20      |
| Wyoming.....                 | 58            | 47      | 1        | 0       | 59      | 47      |
| Colorado.....                | 726           | 382     | 1        | 0       | 727     | 382     |
| New Mexico.....              | 41            | 52      | 0        | 0       | 41      | 52      |
| Arizona.....                 | 24            | 29      | 0        | 0       | 24      | 29      |
| Utah.....                    | 412           | 336     | 0        | 0       | 412     | 336     |
| Nevada.....                  | 116           | 149     | 0        | 0       | 116     | 149     |
| Idaho.....                   | 137           | 82      | 0        | 1       | 137     | 83      |
| Washington.....              | 622           | 480     | 0        | 0       | 622     | 480     |
| Oregon.....                  | 842           | 737     | 0        | 0       | 842     | 737     |
| California.....              | 4,105         | 1,520   | 2        | 0       | 4,107   | 1,520   |

TABLE 6.—*Students in courses of study in universities and colleges.*

| State or Territory.          | Students reported<br>in undergraduate<br>degree courses. | Per cent of students in undergraduate degree<br>courses pursuing courses leading to— |                     |               |               |                       |                       |                       |                         | Students in peda-<br>gogical course. | Students in busi-<br>ness course. |
|------------------------------|--|--|---------------------|---------------|---------------|-----------------------|-----------------------|-----------------------|-------------------------|--------------------------------------|-----------------------------------|
|                              |  | A. B. degree.  | Ph. B. de-<br>gree. | B. L. degree. | B. S. degree. | B. C. E. de-<br>gree. | B. M. E. de-<br>gree. | B. E. E. de-<br>gree. | Other first<br>degrees. |                                      |                                   |
| United States.....           | 48,324   | 55.4   | 9.8                 | 6.9           | 19.0          | 2.2                   | 1.2                   | 1.8                   | 3.7                     | 5,316                                | 5,175                             |
| North Atlantic Division..... | 16,761   | 63.1   | 9.4                 | 1.9           | 13.9          | 4.4                   | 2.5                   | 3.4                   | 1.4                     | 192                                  | 340                               |
| South Atlantic Division..... | 3,924  | 82.1   | 3.5                 | 1.9           | 9.3           | .9                    | .2                    | .4                    | 1.7                     | 629                                  | 200                               |
| South Central Division.....  | 4,878  | 40.5   | 4.1                 | 8.8           | 29.0          | .5                    | .....                 | .....                 | 8.1                     | 1,150                                | 746                               |
| North Central Division.....  | 19,178   | 45.2   | 13.3                | 10.8          | 22.4          | 1.2                   | .7                    | 1.2                   | 5.0                     | 2,486                                | 3,435                             |
| Western Division.....        | 3,583  | 52.9   | 7.9                 | 12.8          | 21.8          | .3                    | .1                    | .2                    | 4.0                     | 859                                  | 454                               |
| North Atlantic Division:     |  |  |                     |               |               |                       |                       |                       |                         |                                      |                                   |
| Maine.....                   | 634  | 100.0  | 0                   | 0             | 0             | 0                     | 0                     | 0                     | 0                       | 0                                    | 0                                 |
| New Hampshire.....           | 354  | 53.7   | .....               | 19.8          | 23.7          | 2.8                   | .....                 | .....                 | .....                   | .....                                | .....                             |
| Vermont.....                 | 317  | 44.2   | 15.1                | 0             | 40.7          | 0                     | 0                     | 0                     | 0                       | 0                                    | 0                                 |
| Massachusetts.....           | 2,885  | 86.6   | .2                  | .....         | 10.6          | .4                    | .....                 | 2.2                   | .....                   | .....                                | 18                                |
| Rhode Island.....            | 468  | 63.5   | 23.7                | 0             | .9            | 6.8                   | 2.1                   | 0                     | 0                       | 0                                    | 0                                 |
| Connecticut.....             | 2,185  | 63.7   | 33.8                | .....         | 2.5           | .....                 | .....                 | .....                 | .....                   | .....                                | .....                             |
| New York.....                | 4,815  | 44.1   | 9.2                 | 2.9           | 21.7          | 5.9                   | 6.8                   | 7.3                   | 2.1                     | 81                                   | 192                               |
| New Jersey.....              | 1,248  | 60.5   | .....               | .....         | 26.4          | 12.2                  | .....                 | .9                    | .....                   | .....                                | .....                             |
| Pennsylvania.....            | 3,855  | 66.0   | 5.8                 | 2.9           | 9.9           | 6.4                   | 2.2                   | 3.5                   | 3.3                     | 111                                  | 130                               |
| South Atlantic Division:     |  |  |                     |               |               |                       |                       |                       |                         |                                      |                                   |
| Delaware.....                | 68   | 48.5   | 0                   | 0             | 4.4           | 16.2                  | 8.8                   | 22.1                  | 0                       | 0                                    | 0                                 |
| Maryland.....                | 804  | 96.0   | 0                   | 1.3           | 2.7           | 0                     | 0                     | 0                     | 0                       | 0                                    | 9                                 |
| District of Columbia.....    | 308  | 86.1   | 1.6                 | 1.6           | 10.7          | .....                 | .....                 | .....                 | .....                   | 5                                    | .....                             |
| Virginia.....                | 436  | 93.8   | .....               | .....         | 2.3           | .....                 | .....                 | .....                 | 3.9                     | 124                                  | 16                                |
| West Virginia.....           | 16   | 12.5   | .....               | 31.2          | .....         | .....                 | .....                 | .....                 | 56.3                    | 41                                   | 42                                |
| North Carolina.....          | 903  | 75.8   | 9.3                 | 1.8           | 13.1          | .....                 | .....                 | .....                 | .....                   | 142                                  | 93                                |
| South Carolina.....          | 498  | 83.5   | .6                  | .....         | 15.7          | .....                 | .....                 | .....                 | .2                      | 148                                  | 20                                |
| Georgia.....                 | 761  | 73.5   | 5.0                 | 3.5           | 11.2          | 3.4                   | .....                 | .....                 | 3.4                     | 166                                  | 10                                |
| Florida.....                 | 70   | 52.9   | 0                   | 17.1          | 11.4          | 0                     | 0                     | 0                     | 18.6                    | 3                                    | 10                                |
| South Central Division:      |  |  |                     |               |               |                       |                       |                       |                         |                                      |                                   |
| Kentucky.....                | 782  | 46.7   | 1.9                 | 12.3          | 39.1          | .....                 | .....                 | .....                 | .....                   | 154                                  | 123                               |
| Tennessee.....               | 1,188  | 43.6   | 3.8                 | 5.6           | 30.5          | .....                 | .....                 | .....                 | 16.5                    | 497                                  | 323                               |
| Alabama.....                 | 414  | 65.2   | .....               | .....         | 32.4          | 2.4                   | .....                 | .....                 | .....                   | 6                                    | 84                                |
| Mississippi.....             | 601  | 38.3   | 1.3                 | 6.7           | 43.4          | 0                     | 0                     | 0                     | 10.3                    | 135                                  | 0                                 |
| Louisiana.....               | 604  | 54.5   | .7                  | .....         | 32.1          | .....                 | .....                 | .....                 | 12.7                    | 51                                   | 73                                |
| Texas.....                   | 847  | 58.5   | .1                  | 26.6          | 11.6          | 2.0                   | .....                 | .....                 | 1.2                     | 231                                  | 137                               |
| Arkansas.....                | 416  | 45.2   | 30.0                | 1.0           | 11.6          | .....                 | .....                 | .....                 | 12.2                    | 57                                   | 6                                 |
| Oklahoma.....                | 10   | 100.0  | 0                   | 0             | 0             | 0                     | 0                     | 0                     | 0                       | 0                                    | 0                                 |
| Indian Territory.....        | 16   | 43.8   | 0                   | 0             | 56.2          | 0                     | 0                     | 0                     | 0                       | 19                                   | 0                                 |
| North Central Division:      |  |  |                     |               |               |                       |                       |                       |                         |                                      |                                   |
| Ohio.....                    | 3,766  | 51.4   | 15.8                | 9.7           | 14.8          | 1.9                   | 1.0                   | 3.1                   | 2.3                     | 641                                  | 554                               |
| Indiana.....                 | 1,901  | 64.9   | 13.9                | 4.1           | 14.0          | 1.2                   | .7                    | .4                    | .8                      | 195                                  | 171                               |
| Illinois.....                | 3,191  | 45.8   | 12.2                | 6.7           | 34.8          | .....                 | .....                 | .....                 | .5                      | 292                                  | 631                               |
| Michigan.....                | 1,965  | 32.6   | 22.9                | 16.7          | 27.8          | .....                 | .....                 | .....                 | .....                   | 121                                  | 99                                |
| Wisconsin.....               | 1,269  | 29.2   | 3.2                 | 39.8          | 12.6          | 4.4                   | 5.4                   | 5.4                   | .....                   | 14                                   | 142                               |
| Minnesota.....               | 1,938  | 22.2   | 6.7                 | 12.5          | 16.3          | 1.5                   | 1.1                   | 2.6                   | 37.1                    | 78                                   | 181                               |
| Iowa.....                    | 2,014  | 32.8   | 24.1                | 2.6           | 38.8          | 1.7                   | .....                 | .....                 | .....                   | 385                                  | 456                               |
| Missouri.....                | 1,538  | 54.0   | 6.3                 | 11.3          | 17.5          | 1.6                   | .3                    | 1.5                   | 7.5                     | 170                                  | 401                               |
| North Dakota.....            | 13   | 46.1   | 7.7                 | 23.1          | 23.1          | .....                 | .....                 | .....                 | .....                   | 8                                    | 26                                |
| South Dakota.....            | 135  | 51.1   | .7                  | 24.5          | 18.5          | .....                 | .....                 | 2.2                   | 3.0                     | 125                                  | 100                               |
| Nebraska.....                | 479  | 70.6   | 2.5                 | .....         | 26.9          | .....                 | .....                 | .....                 | .....                   | 195                                  | 140                               |
| Kansas.....                  | 1,029  | 69.8   | 8.0                 | 9.3           | 12.7          | .....                 | .....                 | .....                 | .2                      | 262                                  | 484                               |
| Western Division:            |  |  |                     |               |               |                       |                       |                       |                         |                                      |                                   |
| Montana.....                 | 15   | .....  | 20.0                | .....         | 53.3          | .....                 | .....                 | .....                 | 26.7                    | .....                                | .....                             |
| Wyoming.....                 | 23   | 34.8   | 8.7                 | 17.4          | 30.4          | 0                     | 8.7                   | 0                     | 0                       | 20                                   | 20                                |
| Colorado.....                | 162  | 42.6   | 24.7                | 10.5          | 16.0          | 2.5                   | 0                     | 3.7                   | 0                       | .....                                | .....                             |
| New Mexico.....              | 0  | 0  | 0                   | 0             | 0             | 0                     | 0                     | 0                     | 0                       | 4                                    | 20                                |
| Arizona.....                 | 26   | 0  | 0                   | 0             | 100.0         | 0                     | 0                     | 0                     | 0                       | 0                                    | 0                                 |
| Utah.....                    | 63   | 7.9  | .....               | 34.9          | 52.4          | .....                 | 4.8                   | .....                 | .....                   | 177                                  | 35                                |
| Nevada.....                  | 84   | 58.3   | 0                   | 0             | 41.7          | .....                 | .....                 | .....                 | .....                   | 67                                   | 42                                |
| Idaho.....                   | 26   | 30.8   | 0                   | 0             | 46.1          | 15.4                  | 0                     | 0                     | 7.7                     | 0                                    | 0                                 |
| Washington.....              | 472  | 25.6   | 3.4                 | 20.1          | 22.7          | 0                     | 0                     | 0                     | 28.2                    | 210                                  | 71                                |
| Oregon.....                  | 241  | 60.2   | 2.1                 | 3.3           | 34.4          | .....                 | .....                 | .....                 | .....                   | 47                                   | 54                                |
| California.....              | 2,471  | 60.4   | 8.7                 | 12.6          | 18.0          | .1                    | 0                     | 0                     | .2                      | 334                                  | 212                               |

TABLE 7.—Degrees conferred on men by universities and colleges.

| State or Territory.       | A. B. | B. S. | Ph. B. | B. L. | A. M. | M. S. | M. L. | Ph. M. | Ph. D. | B. C. E.,<br>C. E.,<br>M. E. | B. M. E.,<br>M. E. | B. E. E.,<br>E. E. | Min. E. and<br>Met. E. | E. M. | B. Arch. | B. Agr. | So. D. | Mus. B. | B. O. | Ped. B. | Pa. M. | Pa. D. |
|---------------------------|-------|-------|--------|-------|-------|-------|-------|--------|--------|------------------------------|--------------------|--------------------|------------------------|-------|----------|---------|--------|---------|-------|---------|--------|--------|
| United States.....        | 4,156 | 1,207 | 735    | 278   | 968   | 120   | 20    | 16     | 213    | 202                          | 124                | 61                 | 2                      | 20    | 20       | 9       | 10     | 9       | 1     | 73      | 11     | 4      |
| North Atlantic Division:  |       |       |        |       |       |       |       |        |        |                              |                    |                    |                        |       |          |         |        |         |       |         |        |        |
| Maine.....                | 94    |       |        |       | 23    |       |       |        | 1      |                              |                    |                    |                        |       |          |         |        |         |       |         |        |        |
| New Hampshire.....        | 42    | 15    |        | 12    |       |       |       |        |        | 10                           |                    |                    |                        |       |          |         |        |         |       |         |        |        |
| Vermont.....              | 27    | 14    | 8      |       | 1     |       |       |        |        |                              |                    |                    |                        |       |          |         |        |         |       |         |        |        |
| Massachusetts.....        | 575   | 64    | 6      |       | 110   |       |       |        | 21     | 4                            |                    | 1                  |                        |       |          |         | 2      |         |       |         |        |        |
| Rhode Island.....         | 60    |       | 29     |       | 18    |       |       |        |        | 4                            |                    |                    |                        |       |          |         |        |         |       |         |        |        |
| Connecticut.....          | 293   | 5     | 106    |       | 11    | 2     | 11    |        | 14     |                              |                    |                    |                        |       |          |         |        |         |       |         |        |        |
| New York.....             | 317   | 102   | 106    | 27    | 134   | 12    | 4     | 3      | 37     | 69                           | 95                 | 15                 | 1                      | 13    | 19       | 4       | 6      | 2       |       |         | 11     | 4      |
| New Jersey.....           | 177   | 58    |        |       | 112   | 6     |       |        | 1      | 21                           |                    | 8                  |                        | 2     |          |         | 1      |         |       |         |        |        |
| Pennsylvania.....         | 368   | 185   | 34     | 6     | 141   | 14    |       | 2      | 19     | 22                           | 15                 | 5                  |                        |       |          |         | 1      |         |       |         |        |        |
| South Atlantic Division:  |       |       |        |       |       |       |       |        |        |                              |                    |                    |                        |       |          |         |        |         |       |         |        |        |
| Delaware.....             | 7     |       |        |       | 2     |       |       |        |        | 3                            | 2                  | 2                  |                        |       |          |         |        |         |       |         |        |        |
| Maryland.....             | 108   | 10    | 11     |       | 19    |       |       |        | 48     |                              |                    |                    |                        |       |          |         |        |         |       |         |        |        |
| District of Columbia..... | 32    | 7     | 1      |       | 22    | 9     |       |        | 1      |                              |                    |                    |                        |       |          |         |        |         |       |         |        |        |
| Virginia.....             | 83    | 8     |        |       | 41    |       |       |        | 5      | 6                            |                    |                    |                        |       |          |         |        |         |       |         |        |        |
| West Virginia.....        | 20    |       |        | 4     | 1     | 6     |       |        |        |                              |                    |                    |                        |       |          |         |        | 1       |       |         |        |        |
| North Carolina.....       | 105   | 19    | 15     | 3     | 18    |       |       |        |        |                              |                    |                    |                        |       |          |         |        |         |       |         |        |        |
| South Carolina.....       | 81    | 1     | 1      | 4     | 9     |       |       |        | 1      |                              |                    |                    |                        |       |          |         |        |         |       |         |        |        |
| Georgia.....              | 73    | 18    | 2      | 12    |       | 1     |       |        |        | 3                            |                    |                    |                        |       |          |         |        |         |       |         |        |        |
| Florida.....              | 1     |       | 1      |       | 1     |       |       |        |        |                              |                    |                    |                        |       |          |         |        |         |       |         |        |        |
| South Central Division:   |       |       |        |       |       |       |       |        |        |                              |                    |                    |                        |       |          |         |        |         |       |         |        |        |
| Kentucky.....             | 47    | 31    | 4      | 21    | 8     |       |       |        |        |                              |                    |                    |                        |       |          |         |        |         |       |         |        |        |
| Tennessee.....            | 102   | 52    | 8      | 2     | 26    | 2     |       |        | 5      | 10                           |                    |                    |                        |       |          |         |        |         |       | a 61    |        |        |
| Alabama.....              | 31    | 39    | 11     | 1     | 3     |       |       |        |        | 2                            |                    |                    |                        |       |          |         |        |         |       |         |        |        |
| Mississippi.....          | 15    | 7     | 6      | 8     |       |       |       |        | 1      |                              |                    |                    |                        |       |          |         |        |         |       |         |        |        |
| Louisiana.....            | 38    | 16    | 4      |       | 15    |       |       |        |        | 7                            | 1                  |                    |                        |       |          |         |        |         |       |         |        |        |
| Texas.....                | 50    | 4     | 1      | 14    | 17    |       |       |        |        | 3                            |                    |                    |                        |       |          |         |        |         |       |         |        |        |
| Arkansas.....             | 13    | 5     | 2      |       |       |       |       |        |        |                              |                    |                    |                        |       |          |         |        |         |       |         |        |        |
| Indian Territory.....     |       | 1     |        |       |       |       |       |        |        |                              |                    |                    |                        |       |          |         |        |         |       |         |        |        |
| North Central Division:   |       |       |        |       |       |       |       |        |        |                              |                    |                    |                        |       |          |         |        |         |       |         |        |        |
| Ohio.....                 | 283   | 64    | 58     | 12    | 60    | 9     |       | 2      | 14     | 9                            | 2                  | 15                 |                        | 1     |          | 1       | 1      | 1       |       |         |        | 4      |

[illegible]

a L. I. (licentiate of instruction).



TABLE 8.—Degrees conferred on women by coeducational universities and colleges.

| State or Territory.      | A. B. | B. S. | Ph. D. | B. L. | M. E. L. | A. M. | M. S. | M. L. | Ph. M. | Ph. D. | Sc. D. | B. Arch. | Mus. B. | B. Paint. | B. O. | Ped. B. | Pd. M. | Pd. D. |
|--------------------------|-------|-------|--------|-------|----------|-------|-------|-------|--------|--------|--------|----------|---------|-----------|-------|---------|--------|--------|
| United States.....       | 656   | 263   | 234    | 266   | 15       | 75    | 12    | 11    | 9      | 19     | 1      | 2        | 38      | 6         | 3     | 83      | 10     | 2      |
| North Atlantic Division. | 122   | 35    | 47     | 23    | ...      | 19    | 4     | ...   | 3      | 12     | 1      | 2        | 3       | 6         | ...   | ...     | 9      | 2      |
| South Atlantic Division. | 28    | 11    | ...    | 19    | 1        | ...   | 5     | 1     | ...    | ...    | ...    | ...      | 2       | ...       | ...   | ...     | ...    | ...    |
| South Central Division.  | 58    | 43    | 6      | 16    | 14       | ...   | 5     | 1     | ...    | ...    | ...    | ...      | 2       | ...       | ...   | 71      | ...    | ...    |
| North Central Division.  | 337   | 158   | 168    | 187   | ...      | 40    | 6     | 9     | 6      | 7      | ...    | ...      | 18      | ...       | 3     | 1       | 1      | ...    |
| Western Division.        | 91    | 19    | 13     | 21    | ...      | 6     | ...   | 2     | ...    | ...    | ...    | ...      | 13      | ...       | ...   | 16      | ...    | ...    |
| North Atlantic Division: |       |       |        |       |          |       |       |       |        |        |        |          |         |           |       |         |        |        |
| Maine.....               | 22    | ...   | ...    | ...   | ...      | ...   | ...   | ...   | ...    | ...    | ...    | ...      | ...     | ...       | ...   | ...     | ...    | ...    |
| Vermont.....             | 9     | 3     | 3      | ...   | ...      | ...   | ...   | ...   | ...    | ...    | ...    | ...      | ...     | ...       | ...   | ...     | ...    | ...    |
| Massachusetts.           | 29    | ...   | 6      | ...   | ...      | 4     | ...   | ...   | ...    | 1      | ...    | ...      | ...     | ...       | ...   | ...     | ...    | ...    |
| Rhode Island.            | 7     | ...   | 4      | ...   | ...      | ...   | ...   | ...   | ...    | ...    | ...    | ...      | ...     | ...       | ...   | ...     | ...    | ...    |
| Connecticut.....         | ...   | 5     | 5      | ...   | ...      | ...   | 1     | ...   | ...    | 3      | ...    | ...      | ...     | ...       | ...   | ...     | ...    | ...    |
| New York.....            | 29    | 10    | 25     | 4     | ...      | 6     | 2     | ...   | 3      | 6      | 1      | 2        | 3       | 6         | ...   | 9       | 2      | ...    |
| Pennsylvania.            | 26    | 17    | 4      | 19    | ...      | 8     | 1     | ...   | ...    | 2      | ...    | ...      | ...     | ...       | ...   | ...     | ...    | ...    |
| South Atlantic Division: |       |       |        |       |          |       |       |       |        |        |        |          |         |           |       |         |        |        |
| Maryland.....            | 14    | ...   | ...    | 1     | ...      | ...   | ...   | ...   | ...    | ...    | ...    | ...      | ...     | ...       | ...   | ...     | ...    | ...    |
| District of Columbia.    | 2     | 3     | ...    | ...   | ...      | 2     | 1     | ...   | ...    | ...    | ...    | ...      | ...     | ...       | ...   | ...     | ...    | ...    |
| West Virginia.           | ...   | 2     | ...    | 7     | ...      | ...   | ...   | ...   | ...    | ...    | ...    | ...      | ...     | ...       | ...   | ...     | ...    | ...    |
| North Carolina.          | 4     | 4     | ...    | ...   | ...      | ...   | ...   | ...   | ...    | ...    | ...    | ...      | 2       | ...       | ...   | ...     | ...    | ...    |
| South Carolina.          | ...   | 2     | ...    | ...   | ...      | ...   | ...   | ...   | ...    | ...    | ...    | ...      | ...     | ...       | ...   | ...     | ...    | ...    |
| Georgia.....             | 8     | ...   | ...    | 9     | ...      | ...   | ...   | ...   | ...    | ...    | ...    | ...      | ...     | ...       | ...   | ...     | ...    | ...    |
| Florida.....             | ...   | ...   | ...    | 2     | 1        | 3     | ...   | ...   | ...    | ...    | ...    | ...      | ...     | ...       | ...   | ...     | ...    | ...    |
| South Central Division:  |       |       |        |       |          |       |       |       |        |        |        |          |         |           |       |         |        |        |
| Kentucky.....            | 7     | 4     | ...    | 2     | ...      | 1     | 1     | ...   | ...    | ...    | ...    | ...      | ...     | ...       | ...   | ...     | ...    | ...    |
| Tennessee.....           | 19    | 24    | 4      | 6     | ...      | 2     | ...   | ...   | ...    | ...    | ...    | ...      | 2       | ...       | ...   | 71      | ...    | ...    |
| Alabama.....             | 1     | 2     | ...    | ...   | 2        | ...   | ...   | ...   | ...    | ...    | ...    | ...      | ...     | ...       | ...   | ...     | ...    | ...    |
| Mississippi.....         | 1     | ...   | ...    | ...   | 1        | ...   | ...   | ...   | ...    | ...    | ...    | ...      | ...     | ...       | ...   | ...     | ...    | ...    |
| Louisiana.....           | 13    | 6     | ...    | ...   | 2        | ...   | ...   | ...   | ...    | ...    | ...    | ...      | ...     | ...       | ...   | ...     | ...    | ...    |
| Texas.....               | 10    | 2     | ...    | 7     | 3        | ...   | ...   | ...   | ...    | ...    | ...    | ...      | ...     | ...       | ...   | ...     | ...    | ...    |
| Arkansas.....            | 7     | 4     | 2      | 1     | 8        | ...   | ...   | ...   | ...    | ...    | ...    | ...      | ...     | ...       | ...   | ...     | ...    | ...    |
| Indian Territory.        | ...   | 1     | ...    | ...   | ...      | ...   | ...   | ...   | ...    | ...    | ...    | ...      | ...     | ...       | ...   | ...     | ...    | ...    |
| North Central Division:  |       |       |        |       |          |       |       |       |        |        |        |          |         |           |       |         |        |        |
| Ohio.....                | 62    | 17    | 40     | 42    | ...      | 3     | ...   | ...   | 1      | 2      | ...    | ...      | 4       | ...       | ...   | ...     | ...    | ...    |
| Indiana.....             | 55    | 9     | 20     | 7     | ...      | 10    | 1     | ...   | 1      | 1      | ...    | ...      | 1       | ...       | ...   | ...     | ...    | ...    |
| Illinois.....            | 52    | 37    | 25     | 20    | ...      | 4     | ...   | 4     | 2      | 2      | ...    | ...      | 2       | ...       | 1     | ...     | 1      | ...    |
| Michigan.....            | 34    | 16    | 37     | 22    | ...      | 2     | 2     | 2     | ...    | ...    | ...    | ...      | ...     | ...       | ...   | ...     | ...    | ...    |
| Wisconsin.....           | 6     | 10    | ...    | 40    | ...      | ...   | ...   | 1     | ...    | ...    | ...    | ...      | ...     | ...       | ...   | ...     | ...    | ...    |
| Minnesota.....           | 14    | 13    | 11     | 28    | ...      | 1     | ...   | ...   | 1      | ...    | ...    | ...      | 4       | ...       | ...   | ...     | ...    | ...    |
| Iowa.....                | 25    | 22    | 27     | 3     | ...      | 3     | 2     | 3     | ...    | ...    | ...    | ...      | 4       | ...       | ...   | 1       | ...    | ...    |
| Missouri.....            | 35    | 15    | 4      | 3     | ...      | 9     | 1     | 2     | ...    | 1      | ...    | ...      | 4       | ...       | ...   | ...     | ...    | ...    |
| North Dakota.            | 1     | ...   | ...    | ...   | ...      | ...   | ...   | ...   | ...    | ...    | ...    | ...      | ...     | ...       | ...   | ...     | ...    | ...    |
| South Dakota.            | 5     | 2     | ...    | ...   | ...      | 1     | ...   | ...   | ...    | ...    | ...    | ...      | ...     | ...       | ...   | ...     | ...    | ...    |
| Nebraska.....            | 28    | 13    | 3      | ...   | ...      | 3     | ...   | ...   | ...    | ...    | ...    | ...      | ...     | ...       | ...   | ...     | ...    | ...    |
| Kansas.....              | 40    | 4     | 1      | 13    | ...      | 4     | ...   | ...   | ...    | ...    | ...    | ...      | 3       | ...       | 2     | ...     | ...    | ...    |
| Western Division:        |       |       |        |       |          |       |       |       |        |        |        |          |         |           |       |         |        |        |
| Wyoming.....             | 2     | 1     | ...    | ...   | ...      | ...   | ...   | ...   | ...    | ...    | ...    | ...      | ...     | ...       | ...   | ...     | ...    | ...    |
| Colorado.....            | 2     | 1     | 3      | 1     | ...      | ...   | ...   | ...   | ...    | ...    | ...    | ...      | ...     | ...       | ...   | ...     | ...    | ...    |
| New Mexico.....          | ...   | ...   | ...    | ...   | ...      | ...   | ...   | ...   | ...    | ...    | ...    | ...      | ...     | ...       | ...   | 4       | ...    | ...    |
| Arizona.....             | ...   | 2     | ...    | ...   | ...      | ...   | ...   | ...   | ...    | ...    | ...    | ...      | ...     | ...       | ...   | ...     | ...    | ...    |
| Nevada.....              | 7     | ...   | ...    | ...   | ...      | ...   | ...   | ...   | ...    | ...    | ...    | ...      | ...     | ...       | ...   | ...     | ...    | ...    |
| Washington.....          | 3     | ...   | ...    | 2     | ...      | ...   | ...   | ...   | ...    | ...    | ...    | ...      | ...     | ...       | ...   | 7       | ...    | ...    |
| Oregon.....              | 13    | 4     | 1      | 1     | ...      | 1     | ...   | ...   | ...    | ...    | ...    | ...      | 1       | ...       | ...   | 5       | ...    | ...    |
| California.....          | 64    | 11    | 9      | 17    | ...      | 5     | ...   | 2     | ...    | ...    | ...    | ...      | 12      | ...       | ...   | ...     | ...    | ...    |

a L. I. (licentiate of instruction).



TABLE 10.—*Property held by universities and colleges.*

| State or Territory.        | Number of fellow-ships. | Number of scholar-ships. | Libraries.     |             | Value of scientific apparatus and libraries. | Value of grounds and buildings. | Productive funds. | Benefactions. |
|----------------------------|-------------------------|--------------------------|----------------|-------------|--|---------------------------------|-------------------|---------------|
|                            |                         |                          | Bound volumes. | Pamphlets.  |  |                                 |                   |               |
| United States.....         | 338                     | 5, 731                   | 6, 092, 673    | 1, 396, 584 | \$15, 258, 111                               | \$114, 362, 542                 | \$102, 574, 808   | \$5, 350, 963 |
| North Atlantic Division... | 145                     | 2, 792                   | 2, 764, 988    | 707, 098    | 7, 349, 226                                  | 44, 290, 995                    | 56, 464, 932      | 2, 575, 692   |
| South Atlantic Division... | 33                      | 591                      | 664, 869       | 104, 572    | 1, 212, 853                                  | 11, 703, 834                    | 7, 726, 957       | 235, 722      |
| South Central Division...  | 23                      | 969                      | 404, 166       | 76, 479     | 880, 936                                     | 9, 288, 565                     | 6, 963, 563       | 188, 445      |
| North Central Division...  | 130                     | 1, 295                   | 1, 960, 424    | 458, 686    | 4, 897, 587                                  | 35, 991, 064                    | 27, 692, 957      | 2, 110, 220   |
| Western Division.....      | 7                       | 84                       | 298, 226       | 49, 749     | 917, 509                                     | 13, 088, 084                    | 3, 726, 399       | 240, 884      |
| North Atlantic Division:   |                         |                          |                |             |  |                                 |                   |               |
| Maine.....                 | 0                       | 205                      | 102, 923       | 10, 800     | 175, 000                                     | 950, 000                        | 1, 356, 070       | 29, 617       |
| New Hampshire.....         | 0                       | 0                        | 75, 000        | 20, 000     | 100, 000                                     | 500, 000                        | 1, 076, 622       | 0             |
| Vermont.....               | 0                       | 115                      | 66, 695        | 13, 000     | 205, 000                                     | 642, 000                        | 783, 890          | 367, 250      |
| Massachusetts.....         | 49                      | 407                      | 688, 294       | 401, 196    | 1, 324, 000                                  | 7, 489, 450                     | 13, 447, 093      | 289, 983      |
| Rhode Island.....          | 1                       | 100                      | 82, 000        | 20, 000     | 538, 200                                     | 1, 165, 967                     | 1, 159, 833       | 16, 500       |
| Connecticut.....           | 13                      | 113                      | 299, 172       | 23, 500     | 643, 755                                     | 6, 989, 780                     | 5, 623, 500       | 369, 070      |
| New York.....              | 63                      | 1, 344                   | 776, 771       | 138, 232    | 2, 664, 037                                  | 15, 439, 845                    | 23, 183, 678      | 979, 459      |
| New Jersey.....            | 9                       | 96                       | 215, 145       | 5, 100      | 676, 000                                     | 2, 472, 000                     | 3, 500, 000       | 0             |
| Pennsylvania.....          | 10                      | 412                      | 458, 988       | 75, 270     | 1, 023, 234                                  | 8, 641, 953                     | 6, 334, 246       | 523, 813      |
| South Atlantic Division:   |                         |                          |                |             |  |                                 |                   |               |
| Delaware.....              | 0                       | 30                       | 6, 736         | 5, 714      | 38, 700                                      | 82, 000                         | 83, 000           | 0             |
| Maryland.....              | 21                      | 209                      | 158, 700       | 44, 910     | 249, 300                                     | 2, 010, 000                     | 3, 052, 000       | 8, 322        |
| District of Columbia.....  | 6                       | 114                      | 104, 700       | 2, 000      | 145, 000                                     | 2, 600, 000                     | 374, 700          | 10, 472       |
| Virginia.....              | 3                       | 106                      | 151, 975       | 17, 600     | 444, 568                                     | 2, 283, 634                     | 1, 927, 354       | 17, 995       |
| West Virginia.....         | 0                       | 0                        | 14, 785        | 4, 458      | 31, 000                                      | 432, 000                        | 110, 000          | 0             |
| North Carolina.....        | 0                       | 96                       | 88, 200        | 17, 040     | 105, 500                                     | 1, 333, 200                     | 544, 000          | 48, 500       |
| South Carolina.....        | 0                       | 11                       | 65, 075        | 2, 600      | 67, 525                                      | 923, 500                        | 538, 700          | 2, 200        |
| Georgia.....               | 3                       | 21                       | 62, 348        | 9, 200      | 114, 260                                     | 1, 723, 500                     | 906, 203          | 72, 733       |
| Florida.....               | 0                       | 4                        | 12, 350        | 1, 050      | 17, 000                                      | 316, 000                        | 191, 000          | 75, 500       |
| South Central Division:    |                         |                          |                |             |  |                                 |                   |               |
| Kentucky.....              | 0                       | 383                      | 59, 531        | 12, 350     | 79, 706                                      | 1, 098, 500                     | 1, 251, 770       | 77, 965       |
| Tennessee.....             | 15                      | 324                      | 150, 691       | 27, 974     | 288, 830                                     | 3, 374, 750                     | 2, 204, 740       | 72, 849       |
| Alabama.....               | 0                       | 43                       | 37, 000        | 4, 900      | 154, 375                                     | 880, 500                        | 365, 000          | 0             |
| Mississippi.....           | 4                       | 23                       | 26, 000        | 9, 203      | 112, 400                                     | 450, 000                        | 710, 800          | 4, 000        |
| Louisiana.....             | 0                       | 161                      | 76, 100        | 10, 560     | 107, 060                                     | 1, 748, 000                     | 1, 707, 313       | 11, 096       |
| Texas.....                 | 4                       | 26                       | 37, 094        | 5, 545      | 119, 025                                     | 1, 291, 815                     | 688, 440          | 18, 780       |
| Arkansas.....              | 0                       | 9                        | 14, 350        | 5, 350      | 14, 000                                      | 350, 000                        | 35, 500           | 3, 300        |
| Oklahoma.....              | 0                       | 0                        | 2, 000         | 400         | 4, 000                                       | 45, 000                         | 0                 | 100           |
| Indian Territory.....      | 0                       | 0                        | 1, 400         | 200         | 1, 600                                       | 50, 000                         | 0                 | 385           |
| North Central Division:    |                         |                          |                |             |  |                                 |                   |               |
| Ohio.....                  | 5                       | 658                      | 346, 930       | 96, 300     | 867, 768                                     | 7, 272, 250                     | 7, 639, 647       | 461, 629      |
| Indiana.....               | 1                       | 14                       | 180, 030       | 10, 590     | 362, 500                                     | 4, 080, 692                     | 1, 771, 187       | 39, 019       |
| Illinois.....              | 99                      | 202                      | 509, 956       | 94, 845     | 780, 200                                     | 6, 756, 000                     | 6, 886, 955       | 999, 155      |
| Michigan.....              | 3                       | 7                        | 194, 280       | 59, 220     | 651, 138                                     | 2, 123, 264                     | 1, 587, 805       | 63, 700       |
| Wisconsin.....             | 12                      | 45                       | 212, 397       | 101, 283    | 667, 200                                     | 2, 267, 000                     | 1, 396, 551       | 110, 415      |
| Minnesota.....             | 2                       | 3                        | 80, 325        | 18, 000     | 214, 352                                     | 2, 736, 493                     | 1, 615, 542       | 31, 766       |
| Iowa.....                  | 2                       | 246                      | 134, 889       | 11, 075     | 355, 654                                     | 2, 420, 765                     | 1, 512, 176       | 191, 532      |
| Missouri.....              | 6                       | 97                       | 141, 688       | 46, 650     | 343, 125                                     | 4, 261, 100                     | 3, 051, 625       | 75, 945       |
| North Dakota.....          | 0                       | 4                        | 7, 268         | 3, 000      | 27, 750                                      | 183, 000                        | 0                 | 0             |
| South Dakota.....          | 0                       | 0                        | 11, 175        | 3, 000      | 22, 750                                      | 434, 000                        | 100, 000          | 75, 700       |
| Nebraska.....              | 0                       | 16                       | 56, 086        | 5, 513      | 213, 150                                     | 1, 759, 000                     | 1, 471, 422       | 14, 283       |
| Kansas.....                | 0                       | 3                        | 85, 400        | 9, 210      | 392, 000                                     | 1, 697, 500                     | 660, 047          | 17, 076       |
| Western Division:          |                         |                          |                |             |  |                                 |                   |               |
| Montana.....               | 0                       | 1                        | 2, 000         | 4, 000      | 3, 500                                       | 100, 000                        | 0                 | 0             |
| Wyoming.....               | 0                       | 0                        | 3, 307         | 2, 100      | 35, 000                                      | 120, 000                        | 0                 | 0             |
| Colorado.....              | 1                       | 10                       | 51, 700        | 9, 600      | 85, 950                                      | 1, 020, 130                     | 470, 000          | 41, 868       |
| New Mexico.....            | 0                       | 0                        | 500            | 250         | 500  | 50, 000                         | 0                 | 0             |
| Arizona.....               | 0                       | 0                        | 1, 000         | 2, 300      | 40, 000                                      | 66, 500                         | 0                 | 0             |
| Utah.....                  | 0                       | 30                       | 18, 000        | 5, 600      | 51, 047                                      | 411, 536                        | 291, 427          | 61, 264       |
| Nevada.....                | 0                       | 0                        | 4, 013         | 2, 399      | 21, 462                                      | 68, 220                         | 0                 | 0             |
| Idaho.....                 | 0                       | 0                        | 2, 585         | 1, 500      | 18, 400                                      | 123, 000                        | 3, 487            | 100           |
| Washington.....            | 0                       | 4                        | 12, 820        | 6, 090      | 30, 700                                      | 1, 704, 000                     | 8, 000            | 12, 267       |
| Oregon.....                | 0                       | 10                       | 20, 736        | 5, 610      | 39, 700                                      | 835, 000                        | 370, 000          | 22, 500       |
| California.....            | 6                       | 29                       | 181, 565       | 10, 300     | 591, 250                                     | 8, 579, 698                     | 2, 583, 485       | 102, 885      |

TABLE 11.—*Income of universities and colleges.*

| State or Territory.          | From tuition fees. | From productive funds. | From State or municipal appropriations. | From United States Government. | From all other sources. | Total income. |
|------------------------------|--------------------|------------------------|---|--------------------------------|-------------------------|---------------|
| United States.....           | \$6,336,655        | \$5,329,001            | \$2,252,756                             | \$701,727                      | \$2,163,499             | \$16,783,638  |
| North Atlantic Division..... | 2,749,469          | 2,788,189              | 343,049                                 | 126,875                        | 769,012                 | 6,776,594     |
| South Atlantic Division..... | 534,765            | 384,951                | 152,510                                 | 171,500                        | 217,695                 | 1,461,421     |
| South Central Division.....  | 568,177            | 424,488                | 69,830                                  | 59,686                         | 168,353                 | 1,290,534     |
| North Central Division.....  | 2,272,426          | 1,526,361              | 1,309,336                               | 183,666                        | 687,579                 | 5,979,378     |
| Western Division.....        | 211,868            | 205,012                | 378,031                                 | 160,000                        | 320,860                 | 1,275,711     |
| North Atlantic Division:     |                    |                        |   |                                |                         |               |
| Maine.....                   | 43,889             | 67,830                 | 0                                       | 0                              | 0                       | 111,719       |
| New Hampshire.....           | 34,091             | 36,960                 | 7,500                                   | 0                              | 11,587                  | 90,138        |
| Vermont.....                 | 10,287             | 34,734                 | 8,400                                   | 20,000                         | 8,548                   | 81,969        |
| Massachusetts.....           | 715,044            | 723,712                | 0                                       | 0                              | 165,119                 | 1,603,875     |
| Rhode Island.....            | 73,075             | 69,876                 | 0                                       | 0                              | 1,968                   | 144,319       |
| Connecticut.....             | 517,194            | 296,606                | 0                                       | 0                              | 23,756                  | 837,556       |
| New York.....                | 715,442            | 1,027,968              | 151,697                                 | 36,875                         | 336,993                 | 2,268,975     |
| New Jersey.....              | 70,500             | 205,000                | 0                                       | 35,000                         | 120,000                 | 430,500       |
| Pennsylvania.....            | 569,947            | 323,503                | 175,452                                 | 35,000                         | 101,641                 | 1,207,543     |
| South Atlantic Division:     |                    |                        |   |                                |                         |               |
| Delaware.....                | 1,742              | 4,980                  | 3,000                                   | 16,000                         | 0                       | 25,722        |
| Maryland.....                | 171,598            | 127,202                | 18,200                                  | 0                              | 35,083                  | 352,083       |
| District of Columbia.....    | 118,678            | 17,966                 | 0                                       | 93,500                         | 20,367                  | 250,511       |
| Virginia.....                | 98,899             | 101,818                | 55,000                                  | 0                              | 67,667                  | 323,294       |
| West Virginia.....           | 9,788              | 5,388                  | 20,400                                  | 32,000                         | 7,127                   | 74,703        |
| North Carolina.....          | 65,656             | 34,802                 | 20,000                                  | 0                              | 46,851                  | 167,309       |
| South Carolina.....          | 23,313             | 38,390                 | 27,000                                  | 10,000                         | 14,463                  | 113,166       |
| Georgia.....                 | 26,520             | 44,395                 | 5,910                                   | 20,000                         | 19,190                  | 116,015       |
| Florida.....                 | 18,661             | 10,010                 | 3,000                                   | 0                              | 6,947                   | 38,618        |
| South Central Division:      |                    |                        |   |                                |                         |               |
| Kentucky.....                | 74,436             | 68,270                 | 0                                       | 0                              | 14,556                  | 157,262       |
| Tennessee.....               | 149,708            | 130,543                | 16,050                                  | 35,000                         | 49,378                  | 380,679       |
| Alabama.....                 | 70,225             | 28,000                 | 3,460                                   | 0                              | 5,000                   | 106,625       |
| Mississippi.....             | 20,731             | 42,043                 | 580                                     | 0                              | 10,788                  | 74,142        |
| Louisiana.....               | 68,520             | 105,966                | 14,800                                  | 24,686                         | 50,788                  | 264,700       |
| Texas.....                   | 142,307            | 42,396                 | 25,000                                  | 0                              | 26,038                  | 235,741       |
| Arkansas.....                | 37,400             | 2,330                  | 0                                       | 0                              | 3,700                   | 43,430        |
| Oklahoma.....                | 1,100              | 5,000                  | 10,000                                  | 0                              | 0                       | 16,100        |
| Indian Territory.....        | 3,750              | 0                      | 0                                       | 0                              | 8,105                   | 11,855        |
| North Central Division:      |                    |                        |   |                                |                         |               |
| Ohio.....                    | 339,786            | 412,803                | 168,096                                 | 20,000                         | 86,537                  | 1,027,222     |
| Indiana.....                 | 242,057            | 107,775                | 40,000                                  | 0                              | 49,505                  | 439,337       |
| Illinois.....                | 584,557            | 372,130                | 148,269                                 | 35,000                         | 358,187                 | 1,498,143     |
| Michigan.....                | 204,129            | 97,896                 | 231,722                                 | 0                              | 36,954                  | 570,701       |
| Wisconsin.....               | 91,819             | 74,385                 | 274,150                                 | 35,000                         | 36,720                  | 512,074       |
| Minnesota.....               | 110,986            | 71,456                 | 150,800                                 | 39,750                         | 42,730                  | 415,722       |
| Iowa.....                    | 177,275            | 89,522                 | 68,354                                  | 0                              | 30,289                  | 365,440       |
| Missouri.....                | 311,609            | 191,830                | 18,495                                  | 33,916                         | 7,976                   | 563,826       |
| North Dakota.....            | 1,793              | 0                      | 37,000                                  | 0                              | 6,597                   | 45,390        |
| South Dakota.....            | 24,900             | 4,000                  | 25,950                                  | 0                              | 1,200                   | 56,050        |
| Nebraska.....                | 52,916             | 74,794                 | 60,000                                  | 20,000                         | 14,826                  | 222,536       |
| Kansas.....                  | 130,609            | 29,770                 | 86,500                                  | 0                              | 16,058                  | 262,937       |
| Western Division:            |                    |                        |   |                                |                         |               |
| Montana.....                 | 2,500              | 0                      | 0                                       | 0                              | 3,000                   | 5,500         |
| Wyoming.....                 | 253                | 0                      | 3,250                                   | 20,000                         | 1,158                   | 24,661        |
| Colorado.....                | 19,696             | 24,000                 | 60,000                                  | 0                              | 15,547                  | 119,243       |
| New Mexico.....              | 0                  | 0                      | 14,000                                  | 0                              | 0                       | 14,000        |
| Arizona.....                 | 0                  | 0                      | 5,500                                   | 35,000                         | 0                       | 40,500        |
| Utah.....                    | 5,677              | 16,800                 | 30,000                                  | 0                              | 0                       | 52,477        |
| Nevada.....                  |                    |                        | 15,046                                  | 35,000                         | 0                       | 50,046        |
| Idaho.....                   | 43                 | 688                    | 5,410                                   | 35,000                         | 0                       | 41,141        |
| Washington.....              | 23,041             | 0                      | 95,000                                  | 0                              | 32,571                  | 150,612       |
| Oregon.....                  | 26,538             | 25,300                 | 30,000                                  | 0                              | 1,750                   | 83,588        |
| California.....              | 134,060            | 138,224                | 119,825                                 | 35,000                         | 266,834                 | 693,943       |

## II.—COLLEGES FOR WOMEN.

## DIVISION A.

*Institutions.*—The total number of colleges for women reporting to this office for the year 1894-95 is 163, of which number 54 are reported as nonsectarian—that is, as not being under the control of any particular religious denomination—while the remaining 109 are divided among



12 different religious denominations. The number of institutions in Division A has been reduced to 15 owing to the suspension of Rutgers Female College, New York City.

*Professors and instructors.*—The entire number of professors and instructors reported by the 15 institutions is 593, of which number 480, or 95.4 per cent, are in the regular college departments and but 30, or 6 per cent, in preparatory departments. Ten of the 15 institutions do not maintain preparatory departments. Of the total number of instructors 235, or 56.7 per cent, are women and 218, or 43.3 per cent, are men.

*Students.*—The total number of students enrolled in these institutions was 4,097. In the college departments there were 3,536, or 86.3 per cent; in the preparatory departments there were 157, or 3.8 per cent, and 137, or 3.3 per cent, were enrolled in the graduate departments.

Of the total number of students reported as pursuing courses leading to degrees 2,431, or 77.5 per cent, were in courses leading to the A. B. degree; 596, or 19 per cent, to the B. L. degree, and 111, or 3.5 per cent, to the B. S. degree. Twenty-seven students were reported in pedagogical courses.

*Degrees.*—The number of degrees conferred by the 15 institutions was 564, of which number 492 were A. B. degrees, 30 B. L., 25 B. S., 15 A. M., and 2 Ph. D. No honorary degrees were conferred.

*Property.*—The total value of all property reported is \$10,642,805. The proportion held by the institutions in the several geographical divisions is as follows:

| Division.                    | Institutions.    | Fellowships.     | Scholarships.    | Libraries.       | Apparatus.       | Grounds and buildings. | Productive funds. |
|------------------------------|------------------|------------------|------------------|------------------|------------------|------------------------|-------------------|
|                              | <i>Per cent.</i> | <i>Per cent.</i> | <i>Per cent.</i> | <i>Per cent.</i> | <i>Per cent.</i> | <i>Per cent.</i>       | <i>Per cent.</i>  |
| North Atlantic Division..... | 66.7             | 100.0            | 82.2             | 66.1             | 75.7             | 74.7                   | 82.2              |
| South Atlantic Division..... | 13.3             | .0               | 10.4             | 3.8              | 6.7              | 13.8                   | 10.7              |
| North Central Division.....  | 13.3             | .0               | 2.0              | 27.8             | 16.1             | 4.4                    | 5.3               |
| Western Division.....        | 6.7              | .0               | 5.4              | 2.3              | 1.5              | 7.1                    | 1.8               |

*Income.*—The total income reported by these institutions was \$1,181,795, of which amount 65.4 per cent was derived from tuition fees, 17.7 per cent from endowment funds, and 16.9 per cent from miscellaneous sources. None of the institutions of this class receive aid from either the State or municipality.

*Benefactions.*—The amount of benefactions received during the year was \$407,088, of which amount \$272,124 was received by the institutions of the North Atlantic Division.

#### DIVISION B.

*Institutions.*—The number of institutions included in this class of schools for the year 1894-95 was 148, which is 2 less than were reported in the preceding year. During the year this office was notified of the suspension of the following institutions: Huntsville Female Seminary,

Huntsville, Ala.; Santa Rosa Ladies' College, Santa Rosa, Cal.; Stuart Female College, Shelbyville, Ky.; Corinth Female College, Corinth, Miss., and Pennsylvania Female College, Collegeville, Pa. Huntsville Female College, Huntsville, Ala., has been removed to Gadsden, Ala., and named Jones College for Young Ladies. Southern Female College, Lagrange, Ga., has been removed to Manchester, Ga.

*Professors and instructors.*—The total number of professors and instructors was reported as 1,922, or an average of 13 instructors per institution. The number of male instructors was 405.

*Students.*—The entire number of students was 20,096, or an average of 136 students per institution. Of the total number, 10,513, or 52.3 per cent, were reported as collegiate students. Only 5,090, or 48.4 per cent, of the students reported in collegiate departments were reported as pursuing courses of study leading to a degree. The number of students that were reported as having graduated during the year was 1,618.

*Degrees.*—There were conferred at the close of the year by the institutions in Division B 1,120 degrees, of which number 369 were M. E. L. degrees, 403 A. B., 104 B. S., 70 A. M., 18 M. L. A., 3 L. A., 4 L. S., 123 B. Mus., and 26 B. Painting. It will thus be seen that nearly 500 of the students who were graduated did not receive degrees.

*Property.*—The total value of the property owned by the 148 institutions is \$10,449,952, of which amount \$883,952 are reported as endowment funds. The balance is invested in grounds, buildings, libraries, and apparatus. The proportion of property held by the institutions of the several geographical divisions is as follows:

| Division.                     | Institutions.    | Libraries.       | Apparatus.       | Grounds and buildings. | Productive funds. |
|-------------------------------|------------------|------------------|------------------|------------------------|-------------------|
|                               | <i>Per cent.</i> | <i>Per cent.</i> | <i>Per cent.</i> | <i>Per cent.</i>       | <i>Per cent.</i>  |
| North Atlantic Division ..... | 9.5              | 29.0             | 24.8             | 14.2                   | 27.0              |
| South Atlantic Division ..... | 32.4             | 29.0             | 21.3             | 31.8                   | 14.7              |
| South Central Division .....  | 37.8             | 28.8             | 23.9             | 25.2                   | 9.7               |
| North Central Division .....  | 18.9             | 19.6             | 23.0             | 26.6                   | 48.6              |
| Western Division .....        | 1.4              | 2.6              | 7.0              | 2.2                    | 0                 |

*Benefactions.*—The value of the gifts and bequests received during the year was \$218,646. Of this amount, \$164,996 was reported by the institutions of the North Central Division.

*Income.*—The income reported by the 148 institutions was \$2,259,363, derived from the following sources: Tuition fees, 85.2 per cent; productive funds, 2.2 per cent; State appropriations, 2.2 per cent, and miscellaneous sources, 10.4 per cent.



TABLE 2.—*Number of professors and students in colleges for women, Division A.*

| State.                       | Number of institutions. | Professors and instructors. |         |                         |         |               |         | Students.    |             |           |              |               |                  |                  |                  |                        |
|------------------------------|-------------------------|-----------------------------|---------|-------------------------|---------|---------------|---------|--------------|-------------|-----------|--------------|---------------|------------------|------------------|------------------|------------------------|
|                              |                         | Preparatory departments.    |         | Collegiate departments. |         | Total number. |         | Preparatory. | Collegiate. | Graduate. |              | Total number. | In A. B. course. | In B. L. course. | In B. S. course. | In pedagogical course. |
|                              |                         | Male.                       | Female. | Male.                   | Female. | Male.         | Female. |              |             | Resident. | Nonresident. |               |                  |                  |                  |                        |
| United States.....           | 15                      | 2                           | 28      | 214                     | 266     | 218           | 285     | 157          | 3,536       | 131       | 6            | 4,097         | 2,431            | 596              | 111              | 27                     |
| North Atlantic Division..... | 10                      | 0                           | 8       | 183                     | 207     | 183           | 212     | 29           | 3,074       | 124       | 6            | 3,367         | 2,119            | 508              | 111              | 21                     |
| South Atlantic Division..... | 2                       | 0                           | 1       | 13                      | 30      | 13            | 31      | 13           | 318         | 2         | 0            | 333           | 256              | ...              | ...              | 6                      |
| North Central Division.....  | 2                       | 2                           | 14      | 17                      | 20      | 17            | 22      | 113          | 134         | 4         | ...          | 251           | 56               | 78               | ...              | ...                    |
| Western Division.....        | 1                       | 0                           | 5       | 1                       | 9       | 5             | 20      | 2            | 10          | 1         | ...          | 146           | ...              | 10               | ...              | ...                    |
| North Atlantic Division:     |                         |                             |         |                         |         |               |         |              |             |           |              |               |                  |                  |                  |                        |
| Massachusetts.....           | 4                       | 0                           | 0       | 105                     | 135     | 105           | 135     | 0            | 2,120       | 56        | 2            | 2,178         | 1,239            | 491              | 84               | 21                     |
| New York.....                | 4                       | 0                           | 2       | 42                      | 57      | 42            | 61      | 14           | 697         | 22        | 4            | 871           | 636              | 14               | 27               | ...                    |
| New Jersey.....              | 1                       | 0                           | 6       | 16                      | 5       | 16            | 6       | 15           | 20          | ...       | ...          | 35            | 7                | 3                | ...              | ...                    |
| Pennsylvania.....            | 1                       | 0                           | 0       | 20                      | 10      | 20            | 10      | 0            | 237         | 46        | 0            | 283           | 237              | ...              | ...              | ...                    |
| South Atlantic Division:     |                         |                             |         |                         |         |               |         |              |             |           |              |               |                  |                  |                  |                        |
| Maryland.....                | 1                       | 0                           | 0       | 13                      | 16      | 13            | 16      | 0            | 206         | 2         | 0            | 208           | 206              | ...              | ...              | ...                    |
| Virginia.....                | 1                       | 0                           | 1       | 0                       | 14      | 0             | 15      | 13           | 112         | ...       | ...          | 125           | 50               | ...              | ...              | 6                      |
| North Central Division:      |                         |                             |         |                         |         |               |         |              |             |           |              |               |                  |                  |                  |                        |
| Ohio.....                    | 1                       | 0                           | 0       | 15                      | 5       | 15            | 5       | 0            | 108         | 4         | ...          | 112           | 30               | 78               | ...              | ...                    |
| Illinois.....                | 1                       | 2                           | 14      | 2                       | 15      | 2             | 17      | 113          | 26          | ...       | ...          | 139           | 26               | ...              | ...              | ...                    |
| Western Division:            |                         |                             |         |                         |         |               |         |              |             |           |              |               |                  |                  |                  |                        |
| California.....              | 1                       | 0                           | 5       | 1                       | 9       | 5             | 20      | 2            | 10          | 1         | ...          | 146           | ...              | 10               | ...              | ...                    |

TABLE 3.—*Degrees conferred by colleges for women, Division A.*

| State.                       | A. B. | B. L. | B. S. | A. M. | Ph. D. |
|------------------------------|-------|-------|-------|-------|--------|
| United States.....           | 492   | 30    | 25    | 15    | 2      |
| North Atlantic Division..... | 461   | 21    | 25    | 12    | 2      |
| South Atlantic Division..... | 24    | ...   | ...   | 2     | ...    |
| North Central Division.....  | 5     | 6     | ...   | 1     | ...    |
| Western Division.....        | 2     | 3     | ...   | ...   | ...    |
| North Atlantic Division:     |       |       |       |       |        |
| Massachusetts.....           | 310   | 18    | 16    | 9     | ...    |
| New York.....                | 122   | 3     | 9     | 2     | 1      |
| New Jersey.....              | 4     | ...   | ...   | ...   | ...    |
| Pennsylvania.....            | 25    | ...   | ...   | 1     | 1      |
| South Atlantic Division:     |       |       |       |       |        |
| Maryland.....                | 24    | ...   | ...   | 2     | ...    |
| North Central Division:      |       |       |       |       |        |
| Ohio.....                    | 2     | 6     | ...   | 1     | ...    |
| Illinois.....                | 3     | ...   | ...   | ...   | ...    |
| Western Division:            |       |       |       |       |        |
| California.....              | 2     | 3     | ...   | ...   | ...    |



TABLE 4.—*Property and income of colleges for women, Division A.*

| State.                        | Num-ber of fellow-ship-ers. | Num-ber of scholar-ship-ers. | Volumes in libraries. | Value of scientific apparatus and libraries. | Value of grounds and buildings. | Amount of produc-tive funds. | Income.            |                         |                     | Total in-come. | Benefac-tions. |
|-------------------------------|-----------------------------|------------------------------|-----------------------|--|---------------------------------|------------------------------|--------------------|-------------------------|---------------------|----------------|----------------|
|                               |                             |                              |                       |  |                                 |                              | From tuition fees. | From pro-ductive funds. | From other sources. |                |                |
| United States .....           | 12                          | 259                          | 199,796               | \$683,438                                    | \$5,670,552                     | \$4,288,815                  | \$772,602          | \$209,792               | \$199,401           | \$1,181,795    | \$407,088      |
| North Atlantic Division ..... | 12                          | 213                          | 132,156               | 517,438                                      | 4,235,552                       | 3,526,425                    | 667,706            | 164,241                 | 156,710             | 988,657        | 272,124        |
| South Atlantic Division ..... | 27                          | 7,500                        | 7,500                 | 46,000                                       | 785,000                         | 459,000                      | 37,596             | 26,246                  | 16,110              | 79,952         | 125,000        |
| North Central Division .....  | 5                           | 55,640                       | 55,640                | 110,000                                      | 250,000                         | 228,390                      | 13,000             | 16,200                  | 26,581              | 55,781         | 8,864          |
| Western Division .....        | 14                          | 4,500                        | 4,500                 | 10,000                                       | 400,000                         | 75,000                       | 54,300             | 3,105                   | .....               | 57,405         | 1,100          |
| North Atlantic Division:      |                             |                              |                       |  |                                 |                              |                    |                         |                     |                |                |
| Massachusetts .....           | 152                         | 75,800                       | 75,800                | 255,500                                      | 2,166,537                       | 1,134,470                    | 394,037            | 53,054                  | 132,710             | 579,801        | 169,067        |
| New York .....                | 1                           | 32,032                       | 32,032                | 201,638                                      | 1,044,015                       | 1,391,555                    | 238,069            | 61,187                  | 24,000              | 323,856        | 120,557        |
| New Jersey .....              | 3                           | 2,000                        | 2,000                 | .....  | 25,000                          | .....                        | 8,000              | .....                   | .....               | 8,000          | 2,500          |
| Pennsylvania .....            | 11                          | 22,324                       | 22,324                | 60,000                                       | 1,000,000                       | 1,000,000                    | 27,000             | 50,000                  | .....               | 77,000         | 40,000         |
| South Atlantic Division:      |                             |                              |                       |  |                                 |                              |                    |                         |                     |                |                |
| Maryland .....                | 27                          | 7,000                        | 7,000                 | 44,000                                       | 688,000                         | 369,000                      | 26,346             | 21,146                  | 16,110              | 63,602         | 125,000        |
| Virginia .....                | .....                       | 500                          | 500                   | 2,000  | 97,000                          | 90,000                       | 11,250             | 5,100                   | .....               | 16,350         | .....          |
| North Central Division:       |                             |                              |                       |  |                                 |                              |                    |                         |                     |                |                |
| Ohio .....                    | .....                       | 50,000                       | 50,000                | 100,000                                      | 125,000                         | 175,000                      | 7,000              | 13,000                  | .....               | 20,000         | 3,000          |
| Illinois .....                | 5                           | 5,640                        | 5,640                 | 10,000                                       | 125,000                         | 53,390                       | 6,000              | 3,200                   | 26,581              | 35,781         | 5,864          |
| Western Division:             |                             |                              |                       |  |                                 |                              |                    |                         |                     |                |                |
| California .....              | 14                          | 4,500                        | 4,500                 | 10,000                                       | 400,000                         | 75,000                       | 54,300             | 3,105                   | .....               | 57,405         | 1,100          |

TABLE 5.—*Professors and students in colleges for women, Division B.*

| State.                                 | Number of institutions. |                | Pro-<br>fessors<br>and in-<br>struct-<br>ors. |               | Students. |              |             |           |               |                           |  |       |     |     |     |                        |           |
|--|-------------------------|----------------|---|---------------|-----------|--------------|-------------|-----------|---------------|---------------------------|--|-------|-----|-----|-----|------------------------|-----------|
|  |                         |                |   |               | Primary.  | Preparatory. | Collegiate. | Graduate. | Total number. | Number graduated in 1895. | Number pursuing<br>courses of study<br>leading to— |       |     |     |     | In pedagogical course. | In music. |
|  | A. B. degree.           | Ph. B. degree. | M. E. L. or B. L. de-<br>gree.                | B. S. degree. |           |              |             |           |               |                           | Other first degrees.                               |       |     |     |     |                        |           |
| United States . . .                    | 148                     | 405            | 1,517   | 1,782         | 4,717     | 10,513       | 164         | 20,096    | 1,618         | 2,693                     | 29   | 1,320 | 824 | 224 | 446 | 7,980                  | 2,788     |
| North Atlantic Divi-<br>sion . . . . . | 14                      | 64             | 210   | 91            | 1,139     | 906          | 23          | 2,534     | 229           | 297                       | ..   | 55    | 72  | 35  | 8   | 530                    | 461       |
| South Atlantic Divi-<br>sion . . . . . | 48                      | 148            | 463   | 495           | 1,062     | 4,302        | 55          | 6,563     | 636           | 1,156                     | ..   | 138   | 256 | 144 | 224 | 2,729                  | 906       |
| South Central Divi-<br>sion . . . . .  | 56                      | 124            | 500   | 948           | 1,464     | 3,671        | 66          | 7,532     | 453           | 986                       | 22   | 986   | 443 | 14  | 172 | 2,959                  | 944       |
| North Central Divi-<br>sion . . . . .  | 28                      | 66             | 318   | 212           | 995       | 1,622        | 18          | 3,360     | 295           | 244                       | ..   | 122   | 43  | 31  | 7   | 1,683                  | 450       |
| Western Division . . . . .             | 2                       | 3              | 26  | 36            | 57        | 12           | 2           | 107       | 5             | 10                        | 7  | 19    | 10  | ..  | 35  | 79                     | 27        |
| North Atlantic Divi-<br>sion:          |                         |                |   |               |           |              |             |           |               |                           |  |       |     |     |     |                        |           |
| Maine . . . . .                        | 2                       | 11             | 12  | 8             | 222       | 49           | 1           | 313       | 51            | 9                         | ..   | ..    | ..  | ..  | 8   | 12                     | 10        |
| New Hampshire . . . . .                | 1                       | 5              | 7   | ..            | 90        | 15           | ..          | 182       | 25            | ..                        | ..   | ..    | ..  | 15  | ..  | 64                     | 48        |
| Massachusetts . . . . .                | 1                       | 11             | 23  | 0             | 8         | 160          | 0           | 168       | 21            | ..                        | ..   | ..    | ..  | ..  | ..  | 96                     | 11        |
| New York . . . . .                     | 1                       | 5              | 51  | 38            | 578       | 139          | 8           | 763       | 35            | 0                         | 0  | 0     | 0   | 0   | 0   | 0                      | 220       |
| Pennsylvania . . . . .                 | 9                       | 32             | 117   | 45            | 241       | 543          | 14          | 1,108     | 97            | 238                       | ..   | 55    | 72  | 20  | ..  | 358                    | 172       |
| South Atlantic Divi-<br>sion:          |                         |                |   |               |           |              |             |           |               |                           |  |       |     |     |     |                        |           |
| Maryland . . . . .                     | 3                       | 12             | 31  | 36            | 15        | 251          | 4           | 358       | 45            | 92                        | ..   | 19    | ..  | 2   | ..  | 144                    | 55        |
| Virginia . . . . .                     | 16                      | 56             | 147   | 127           | 400       | 1,036        | 13          | 1,803     | 131           | 233                       | ..   | 9     | 86  | 42  | 2   | 527                    | 219       |
| West Virginia . . . . .                | 1                       | 0              | 3   | 18            | 17        | ..           | ..          | 35        | 2             | ..                        | ..   | ..    | ..  | ..  | ..  | 35                     | ..        |
| North Carolina . . . . .               | 8                       | 17             | 81  | 66            | 206       | 716          | 6           | 1,216     | 116           | 16                        | ..   | ..    | 20  | 40  | 25  | 614                    | 164       |
| South Carolina . . . . .               | 9                       | 29             | 89  | 69            | 174       | 934          | 12          | 1,189     | 106           | 350                       | ..   | 50    | 40  | ..  | 31  | 614                    | 245       |
| Georgia . . . . .                      | 11                      | 34             | 112   | 179           | 250       | 1,365        | 20          | 1,962     | 236           | 465                       | ..   | 60    | 110 | 60  | 166 | 795                    | 223       |
| South Central Divi-<br>sion:           |                         |                |   |               |           |              |             |           |               |                           |  |       |     |     |     |                        |           |
| Kentucky . . . . .                     | 12                      | 27             | 101   | 170           | 279       | 529          | 11          | 1,434     | 74            | 234                       | ..   | 69    | 165 | 3   | 18  | 578                    | 175       |
| Tennessee . . . . .                    | 15                      | 42             | 173   | 324           | 414       | 1,143        | 34          | 2,442     | 128           | 262                       | 10   | 262   | 54  | 10  | 30  | 785                    | 265       |
| Alabama . . . . .                      | 11                      | 20             | 95  | 170           | 274       | 916          | 17          | 1,390     | 118           | 139                       | 12   | 286   | 10  | 1   | 17  | 656                    | 219       |
| Mississippi . . . . .                  | 11                      | 24             | 82  | 104           | 295       | 657          | 2           | 1,349     | 80            | 228                       | ..   | 249   | 119 | ..  | 100 | 565                    | 202       |
| Louisiana . . . . .                    | 3                       | 6              | 17  | 86            | 145       | 163          | ..          | 394       | 11            | 63                        | ..   | 78    | 30  | ..  | ..  | 100                    | 34        |
| Texas . . . . .                        | 3                       | 4              | 27  | 51            | 57        | 263          | 2           | 426       | 41            | 60                        | ..   | 42    | 65  | ..  | ..  | 243                    | 48        |
| Arkansas . . . . .                     | 1                       | 1              | 5   | 43            | ..        | ..           | 0           | 97        | 1             | ..                        | ..   | ..    | ..  | ..  | 7   | 32                     | 1         |
| North Central Divi-<br>sion:           |                         |                |   |               |           |              |             |           |               |                           |  |       |     |     |     |                        |           |
| Ohio . . . . .                         | 7                       | 11             | 106   | 12            | 343       | 570          | 4           | 1,019     | 99            | 63                        | ..   | 21    | ..  | ..  | ..  | 374                    | 103       |
| Indiana . . . . .                      | 1                       | 2              | 14  | ..            | 70        | 30           | ..          | 100       | 4             | 30                        | ..   | ..    | ..  | ..  | ..  | 40                     | ..        |
| Illinois . . . . .                     | 4                       | 11             | 47  | 54            | 88        | 191          | 2           | 539       | 48            | 50                        | ..   | ..    | ..  | 7   | ..  | 289                    | 77        |
| Wisconsin . . . . .                    | 2                       | 1              | 19  | 7             | 97        | 31           | 0           | 135       | 5             | 27                        | ..   | ..    | 4   | ..  | ..  | 54                     | 18        |
| Minnesota . . . . .                    | 1                       | 1              | 6   | 2             | 40        | 10           | ..          | 52        | 4             | 4                         | ..   | ..    | 6   | ..  | ..  | 15                     | 50        |
| Missouri . . . . .                     | 11                      | 36             | 105   | 108           | 256       | 715          | 12          | 1,216     | 123           | 70                        | ..   | 114   | 12  | 31  | ..  | 774                    | 179       |
| Kansas . . . . .                       | 2                       | 4              | 21  | 29            | 101       | 75           | ..          | 299       | 12            | ..                        | ..   | 8     | ..  | ..  | ..  | 137                    | 23        |
| Western Division:                      |                         |                |   |               |           |              |             |           |               |                           |  |       |     |     |     |                        |           |
| California . . . . .                   | 2                       | 3              | 26  | 36            | 57        | 12           | 2           | 107       | 5             | 10                        | 7  | 19    | 10  | ..  | 35  | 79                     | 27        |

TABLE 6.—Degrees conferred by colleges for women, Division B.

| State.                     | M. E. L.<br>or<br>B. L. | A. B. | B. S. | A. M. | M. L. A. | L. A. | L. S. | B. Mus. | B. Phil. |
|----------------------------|-------------------------|-------|-------|-------|----------|-------|-------|---------|----------|
| United States .....        | 369                     | 403   | 104   | 70    | 18       | 3     | 4     | 123     | 26       |
| North Atlantic Division .. | 12                      | 27    | 13    | 5     | .....    | 3     | 4     | 15      | 1        |
| South Atlantic Division .. | 87                      | 210   | 32    | 11    | .....    | ..... | ..... | 61      | 15       |
| South Central Division ..  | 215                     | 117   | 41    | 41    | .....    | ..... | ..... | 16      | 5        |
| North Central Division ..  | 55                      | 49    | 13    | 13    | 18       | ..... | ..... | 30      | 5        |
| Western Division .....     | .....                   | ..... | 5     | ..... | .....    | ..... | ..... | 1       | .....    |
| North Atlantic Division:   |                         |       |       |       |          |       |       |         |          |
| Maine .....                | .....                   | ..... | ..... | ..... | .....    | 3     | 4     | .....   | .....    |
| New Hampshire .....        | 4                       | ..... | ..... | ..... | .....    | ..... | ..... | .....   | .....    |
| Pennsylvania .....         | 8                       | 27    | 13    | 5     | .....    | ..... | ..... | 15      | 1        |
| South Atlantic Division:   |                         |       |       |       |          |       |       |         |          |
| Virginia .....             | 19                      | 59    | 21    | 3     | .....    | ..... | ..... | 15      | 4        |
| North Carolina .....       | 1                       | 3     | ..... | 5     | .....    | ..... | ..... | 2       | 1        |
| South Carolina .....       | 32                      | 45    | 1     | ..... | .....    | ..... | ..... | 12      | 2        |
| Georgia .....              | 35                      | 103   | 10    | 3     | .....    | ..... | ..... | 32      | 8        |
| South Central Division:    |                         |       |       |       |          |       |       |         |          |
| Kentucky .....             | 19                      | 16    | 12    | ..... | .....    | ..... | ..... | 1       | .....    |
| Tennessee .....            | 49                      | 40    | 3     | 17    | .....    | ..... | ..... | 6       | .....    |
| Alabama .....              | 82                      | 31    | ..... | 24    | .....    | ..... | ..... | 3       | 5        |
| Mississippi .....          | 31                      | 20    | 18    | ..... | .....    | ..... | ..... | 6       | .....    |
| Louisiana .....            | 10                      | 1     | ..... | ..... | .....    | ..... | ..... | .....   | .....    |
| Texas .....                | 24                      | 9     | 7     | ..... | .....    | ..... | ..... | .....   | .....    |
| Arkansas .....             | .....                   | ..... | 1     | ..... | .....    | ..... | ..... | .....   | .....    |
| North Central Division:    |                         |       |       |       |          |       |       |         |          |
| Ohio .....                 | 1                       | 16    | 2     | 1     | .....    | ..... | ..... | .....   | .....    |
| Indiana .....              | .....                   | 1     | ..... | ..... | .....    | ..... | ..... | .....   | .....    |
| Illinois .....             | .....                   | 8     | ..... | ..... | 18       | ..... | ..... | .....   | .....    |
| Wisconsin .....            | 4                       | 1     | ..... | ..... | .....    | ..... | ..... | .....   | .....    |
| Minnesota .....            | .....                   | ..... | 1     | ..... | .....    | ..... | ..... | 3       | .....    |
| Missouri .....             | 42                      | 21    | 10    | 12    | .....    | ..... | ..... | 26      | 5        |
| Kansas .....               | 8                       | 2     | ..... | ..... | .....    | ..... | ..... | 1       | .....    |
| Western Division:          |                         |       |       |       |          |       |       |         |          |
| California .....           | .....                   | ..... | 5     | ..... | .....    | ..... | ..... | 1       | .....    |

TABLE 7.—Property and income of colleges for women, Division B.

| State.                       | Volumes in libraries. | Value of libraries and scientific apparatus. | Value of grounds and buildings. | Amount of productive funds. | Income.                |                    |   |                     | Total income. | Benefactions. |  |
|------------------------------|-----------------------|--|---------------------------------|-----------------------------|------------------------|--------------------|---|---------------------|---------------|---------------|--|
|                              |                       |  |                                 |                             | From productive funds. | From tuition fees. | From State or municipal appropriations. | From other sources. |               |               |  |
| United States.....           |                       |  |                                 |                             |                        |                    |   |                     |               |               |  |
| North Atlantic Division..... |                       |  |                                 |                             |                        |                    |   |                     |               |               |  |
| Maine.....                   | 47,792                | 76,081                                       | 1,314,144                       | 238,375                     | 12,992                 | 392,445            | \$49,350                                | \$255,599           | \$2,259,363   | \$218,616     |  |
| New Hampshire.....           | 69,290                | 63,375                                       | 2,945,500                       | 130,000                     | 5,100                  | 519,082            | 23,850                                  | 74,863              | 480,300       | 25,100        |  |
| Massachusetts.....           | 68,636                | 73,175                                       | 2,827,500                       | 85,500                      | 6,050                  | 564,585            | 25,500                                  | 40,284              | 588,326       | 4,200         |  |
| New York.....                | 46,939                | 70,725                                       | 2,469,000                       | 430,077                     | 25,241                 | 627,913            | 0                                       | 68,164              | 694,299       | 14,350        |  |
| Pennsylvania.....            | 6,000                 | 21,500                                       | 203,000                         | 0                           | 0                      | 26,000             | 0                                       | 44,178              | 492,338       | 164,996       |  |
| South Atlantic Division..... |                       |  |                                 |                             |                        |                    |   |                     |               |               |  |
| Maryland.....                | 10,500                | 17,325                                       | 228,650                         | 132,913                     | 7,300                  | 9,374              | 0                                       | 500                 | 17,174        | 6,500         |  |
| Virginia.....                | 22,600                | 9,600  | 940,000                         | 30,000                      | 1,641                  | 8,592              | 0                                       | 13,270              | 23,503        | 8,000         |  |
| West Virginia.....           | 650                   | 8,500  | 8,500                           | 0                           | 0                      | 15,000             | 0                                       | 60,000              | 75,000        | 0             |  |
| North Carolina.....          | 11,450                | 9,200  | 530,000                         | 10,000                      | 600                    | 92,650             | 0                                       | 800                 | 76,775        | 300           |  |
| South Carolina.....          | 8,800                 | 10,975                                       | 358,000                         | 40,000                      | 951                    | 75,024             | 0                                       | 293                 | 287,848       | 10,300        |  |
| Georgia.....                 | 19,100                | 27,100                                       | 934,000                         | 57,000                      | 3,100                  | 264,455            | 0                                       | 500                 | 49,600        | 500           |  |
| South Central Division.....  |                       |  |                                 |                             |                        |                    |   |                     |               |               |  |
| Kentucky.....                | 11,390                | 11,100                                       | 400,500                         | 5,000                       | 300                    | 43,800             | 0                                       | 5,500               | 49,600        | 500           |  |
| Tennessee.....               | 25,905                | 24,200                                       | 785,000                         | 35,000                      | 3,100                  | 146,787            | 0                                       | 4,994               | 151,781       | 0             |  |
| Alabama.....                 | 15,416                | 18,775                                       | 430,000                         | 10,000                      | 600                    | 92,650             | 0                                       | 9,600               | 102,850       | 3,700         |  |
| Mississippi.....             | 8,900                 | 12,800                                       | 382,000                         | 40,000                      | 600                    | 69,345             | 23,850                                  | 8,300               | 77,645        | 0             |  |
| Louisiana.....               | 4,500                 | 3,500  | 90,000                          | 75,000                      | 4,200                  | 163,640            | 0                                       | 11,900              | 202,950       | 0             |  |
| Texas.....                   | 2,500                 | 2,800  | 215,000                         | 0                           | 0                      | 105,600            | 0                                       | 19,500              | 125,100       | 250           |  |
| Arkansas.....                | 85                    | 0  | 25,000                          | 0                           | 0                      | 222,000            | 0                                       | 6,500               | 231,600       | 0             |  |
| North Central Division.....  |                       |  |                                 |                             |                        |                    |   |                     |               |               |  |
| Ohio.....                    | 18,600                | 27,200                                       | 725,000                         | 167,077                     | 9,511                  | 131,514            | 0                                       | 3,855               | 144,880       | 4,856         |  |
| Indiana.....                 | 2,000                 | 2,500  | 95,000                          | 2,000                       | 100                    | 16,000             | 0                                       | 3,500               | 19,500        | 30,000        |  |
| Illinois.....                | 7,500                 | 9,800  | 495,000                         | 153,000                     | 7,900                  | 79,500             | 0                                       | 12,400              | 92,000        | 1,100         |  |
| Wisconsin.....               | 4,834                 | 9,600  | 70,000                          | 16,255                      | 0                      | 16,255             | 0                                       | 1,523               | 25,678        | 0             |  |
| Minnesota.....               | 1,500                 | 5,000  | 40,000                          | 26,000                      | 1,570                  | 2,250              | 0                                       | 1,800               | 5,620         | 840           |  |
| Missouri.....                | 10,225                | 11,625                                       | 623,000                         | 82,000                      | 6,166                  | 150,400            | 0                                       | 12,100              | 168,660       | 128,200       |  |
| Kansas.....                  | 2,200                 | 5,000  | 421,000                         | 27,000                      | 0                      | 27,000             | 0                                       | 9,000               | 36,000        | 0             |  |
| Western Division.....        |                       |  |                                 |                             |                        |                    |   |                     |               |               |  |
| California.....              | 6,000                 | 21,500                                       | 203,000                         | 0                           | 0                      | 26,000             | 0                                       | 8,100               | 34,100        | 10,000        |  |



## III.—SCHOOLS OF TECHNOLOGY.

*Institutions.*—Under the head of schools of technology are included only independent schools, the statistics of technological departments of universities and colleges being included in the statistics of the institutions with which they are connected. Of the 51 institutions included 31 are colleges of agriculture and the mechanic arts endowed by the acts of Congress of July 2, 1862, and August 30, 1890.

*Professors and instructors.*—The total number of professors and instructors reported by these institutions was 1,217, of which number 1,130, or 92.9 per cent, taught in the regular collegiate departments. The number of female instructors is very small, being but 92, or 7.6 per cent of the total number. The proportion of instructors in the several departments as compared with the proportion of institutions is as follows:

| Division.                    | Institutions.    | Preparatory instructors. | College instructors. | Total number of instructors. |
|------------------------------|------------------|--------------------------|----------------------|------------------------------|
|                              | <i>Per cent.</i> | <i>Per cent.</i>         | <i>Per cent.</i>     | <i>Per cent.</i>             |
| North Atlantic Division..... | 25.5             | 9.2                      | 37.1                 | 35.5                         |
| South Atlantic Division..... | 23.5             | 11.3                     | 17.5                 | 17.2                         |
| South Central Division.....  | 13.7             | 28.4                     | 11.0                 | 13.4                         |
| North Central Division.....  | 21.6             | 39.0                     | 25.4                 | 24.0                         |
| Western Division.....        | 15.7             | 12.1                     | 9.0                  | 9.9                          |

The average number of instructors per institution in the several geographical divisions is as follows: North Atlantic Division, 33; South Atlantic Division, 17; South Central Division, 23; North Central Division, 27; Western Division, 15; while for the entire number of institutions the average is 24.

*Students.*—The total number of students enrolled in the schools of technology was 13,896, of which number 1,865 were women. The proportion of students, by sex, in the various departments of the institutions of the several geographical divisions was as follows:

| Division.                  | Preparatory departments. |                  | Collegiate departments. |                  | Graduate departments. |                  | Total number.    |                  |
|----------------------------|--------------------------|------------------|-------------------------|------------------|-----------------------|------------------|------------------|------------------|
|                            | Male.                    | Female.          | Male.                   | Female.          | Male.                 | Female.          | Male.            | Female.          |
|                            | <i>Per cent.</i>         | <i>Per cent.</i> | <i>Per cent.</i>        | <i>Per cent.</i> | <i>Per cent.</i>      | <i>Per cent.</i> | <i>Per cent.</i> | <i>Per cent.</i> |
| United States.....         | 78.3                     | 21.7             | 89.8                    | 10.2             | 81.0                  | 19.0             | 86.6             | 13.4             |
| North Atlantic Division... | 100.0                    | 0                | 96.1                    | 3.9              | 98.3                  | 1.7              | 96.4             | 3.6              |
| South Atlantic Division... | 85.1                     | 14.9             | 97.5                    | 2.5              | 100.0                 | 0                | 94.5             | 5.5              |
| South Central Division.... | 79.6                     | 20.4             | 88.8                    | 11.2             | 81.6                  | 18.4             | 83.8             | 16.2             |
| North Central Division.... | 70.4                     | 29.6             | 82.9                    | 17.1             | 65.4                  | 34.6             | 80.2             | 19.8             |
| Western Division.....      | 67.3                     | 32.7             | 69.5                    | 30.5             | 80.0                  | 20.0             | 68.5             | 31.5             |

The proportion of students in the several departments compared with the proportion of institutions is as follows:

| Division.                     | Institutions.    | Preparatory students. | Collegiate students. | Graduate students. | Total number of students. |
|-------------------------------|------------------|-----------------------|----------------------|--------------------|---------------------------|
|                               | <i>Per cent.</i> | <i>Per cent.</i>      | <i>Per cent.</i>     | <i>Per cent.</i>   | <i>Per cent.</i>          |
| North Atlantic Division ..... | 25.5             | 10.0                  | 34.4                 | 23.7               | 28.2                      |
| South Atlantic Division ..... | 23.5             | 18.8                  | 18.3                 | 13.1               | 17.4                      |
| South Central Division .....  | 13.7             | 31.3                  | 12.7                 | 15.0               | 18.5                      |
| North Central Division .....  | 21.6             | 16.8                  | 26.6                 | 42.3               | 24.6                      |
| Western Division .....        | 15.7             | 23.1                  | 8.0                  | 5.9                | 11.3                      |

*Degrees.*—The total number of degrees conferred by the schools of technology was 1,093, of which number 105 were conferred on women. Four of the institutions conferred 19 A. B. degrees. The large number of B. S. degrees, 508, is undoubtedly due to the fact that this degree is given in a number of institutions on the completion of the various technical courses, as in the Massachusetts Institute of Technology, Colorado Agricultural College, etc. The degree of bachelor of household economy is conferred by but one institution, the Oregon State Agricultural College.

Four of the institutions conferred honorary degrees. The name and number of each degree conferred was as follows: 1 E. E.; 1 C. E.; 1 Sc. D.; 2 Ph. M.; 1 M. S.; 1 A. M.; 1 D. D., and 2 LL. D.

*Property.*—The value of all property held by schools of technology is \$29,132,205, of which amount \$13,609,529 are reported as productive endowment funds. The proportion of property held by the institutions in the several divisions, compared with the proportion of institutions, is as follows:

| Division.                     | Institutions.    | Libraries.       | Apparatus.       | Grounds and buildings. | Productive funds. |
|-------------------------------|------------------|------------------|------------------|------------------------|-------------------|
|                               | <i>Per cent.</i> | <i>Per cent.</i> | <i>Per cent.</i> | <i>Per cent.</i>       | <i>Per cent.</i>  |
| North Atlantic Division ..... | 25.5             | 53.9             | 33.8             | 49.2                   | 40.9              |
| South Atlantic Division ..... | 23.5             | 13.5             | 6.0              | 13.2                   | 6.0               |
| South Central Division .....  | 13.7             | 7.1              | 8.3              | 10.5                   | 7.3               |
| North Central Division .....  | 21.6             | 21.0             | 44.6             | 21.3                   | 44.8              |
| Western Division .....        | 15.7             | 4.5              | 7.3              | 5.8                    | 1.0               |

*Benefactions.*—The total amount of benefactions reported was \$21,530. The small amount of money given to this class of institutions is undoubtedly due to the fact that very many of them are State institutions and do not appeal to any particular class of individuals, as is the case with institutions under sectarian control. The gifts of the people as a whole have been quite considerable, as will be seen by an examination of the column in Table 5, devoted to State or municipal appropriations, given to these institutions by the people through their representatives in the several State and Territorial legislatures.

*Income.*—The total income of the 51 institutions was \$3,965,593, of which amount \$1,671,828 were appropriated by the General Government and \$880,198 were granted by the several States and Territories. The receipts from tuition fees in this class of institutions are comparatively small, the amount received from this source being but \$524,158. The average income of the institutions is \$77,757. The proportion of income derived from the various sources by the institutions of the several divisions is as follows:

| Division.                    | Tuition fees.    | Productive funds. | State or municipal appropriations. | United States Government. | Other sources.   |
|------------------------------|------------------|-------------------|------------------------------------|---------------------------|------------------|
|                              | <i>Per cent.</i> | <i>Per cent.</i>  | <i>Per cent.</i>                   | <i>Per cent.</i>          | <i>Per cent.</i> |
| United States .....          | 13.2             | 16.6              | 22.2                               | 42.2                      | 5.8              |
| North Atlantic Division..... | 26.8             | 18.3              | 14.6                               | 36.8                      | 3.5              |
| South Atlantic Division..... | 6.8              | 5.7               | 22.0                               | 60.4                      | 5.1              |
| South Central Division.....  | 1.6              | 15.9              | 29.3                               | 48.0                      | 5.2              |
| North Central Division.....  | 6.7              | 31.7              | 24.4                               | 25.3                      | 11.9             |
| Western Division .....       | 1.3              | 2.4               | 39.4                               | 52.7                      | 4.2              |

The summarized statistics, by States and Territories, of these institutions are given in the following tables:

TABLE 1.—*Professors and students in schools of technology.*

| State or Territory.           | Number of institutions. | Professors and instructors. |         |                         |         |               |         | Students.    |         |             |         |           |         |       |         |               |         |
|-------------------------------|-------------------------|-----------------------------|---------|-------------------------|---------|---------------|---------|--------------|---------|-------------|---------|-----------|---------|-------|---------|---------------|---------|
|                               |                         | Preparatory departments.    |         | Collegiate departments. |         | Total number. |         | Preparatory. |         | Collegiate. |         | Graduate. |         |       |         | Total number. |         |
|                               |                         | Male.                       | Female. | Male.                   | Female. | Male.         | Female. | Male.        | Female. | Male.       | Female. | Male.     | Female. | Male. | Female. | Male.         | Female. |
|                               |                         |                             |         |                         |         |               |         |              |         |             |         |           |         |       |         |               |         |
| United States .....           | 51                      | 111                         | 30      | 1,053                   | 77      | 1,125         | 92      | 2,380        | 660     | 9,292       | 1,059   | 175       | 47      | 30    | 0       | 12,031        | 1,865   |
| North Atlantic Division ..... | 13                      | 13                          | 0       | 409                     | 10      | 422           | 10      | 303          | 0       | 3,416       | 140     | 46        | 1       | 13    | 0       | 3,778         | 141     |
| South Atlantic Division ..... | 12                      | 15                          | 1       | 191                     | 7       | 202           | 7       | 487          | 85      | 1,850       | 48      | 33        | 0       | 0     | 0       | 2,282         | 133     |
| South Central Division .....  | 7                       | 31                          | 9       | 118                     | 6       | 150           | 13      | 757          | 194     | 1,171       | 147     | 30        | 7       | 1     | 0       | 2,151         | 417     |
| North Central Division .....  | 11                      | 42                          | 13      | 246                     | 41      | 251           | 41      | 360          | 151     | 2,281       | 472     | 55        | 36      | 15    | 1       | 2,742         | 679     |
| Western Division .....        | 8                       | 10                          | 7       | 89                      | 13      | 100           | 21      | 473          | 230     | 574         | 252     | 11        | 3       | 1     | 0       | 1,078         | 495     |
| North Atlantic Division:      |                         |                             |         |                         |         |               |         |              |         |             |         |           |         |       |         |               |         |
| Maine .....                   | 1                       | 0                           | 0       | 20                      | 1       | 20            | 1       | 0            | 0       | 191         | 9       | 3         | 0       | 0     | 0       | 194           | 9       |
| New Hampshire .....           | 1                       | 0                           | 0       | 17                      | 0       | 17            | 0       | 0            | 0       | 78          | 19      | 0         | 0       | 0     | 0       | 78            | 19      |
| Vermont .....                 | 1                       | 0                           | 0       | 11                      | 0       | 11            | 0       | 0            | 0       | 64          | 0       | 0         | 0       | 0     | 0       | 64            | 0       |
| Massachusetts .....           | 3                       | 0                           | 0       | 199                     | 1       | 199           | 1       | 0            | 0       | 1,514       | 58      | 26        | 0       | 0     | 0       | 1,540         | 58      |
| Rhode Island .....            | 1                       | 0                           | 0       | 19                      | 5       | 19            | 5       | 0            | 0       | 68          | 32      | 9         | 1       | 0     | 0       | 77            | 33      |
| Connecticut .....             | 1                       | 0                           | 0       | 8                       | 3       | 8             | 3       | 0            | 0       | 123         | 22      | 0         | 0       | 0     | 0       | 123           | 22      |
| New York .....                | 2                       | 0                           | 0       | 71                      | 0       | 71            | 0       | 0            | 0       | 488         | 0       | 0         | 0       | 0     | 0       | 488           | 0       |
| New Jersey .....              | 2                       | 13                          | 0       | 28                      | 0       | 41            | 0       | 303          | 0       | 412         | 0       | 0         | 0       | 0     | 0       | 715           | 0       |
| Pennsylvania .....            | 1                       | 0                           | 0       | 36                      | 0       | 36            | 0       | 0            | 0       | 478         | 0       | 8         | 0       | 13    | 0       | 499           | 0       |
| South Atlantic Division:      |                         |                             |         |                         |         |               |         |              |         |             |         |           |         |       |         |               |         |
| Delaware .....                | 1                       | 0                           | 0       | 3                       | 0       | 3             | 0       | 0            | 0       | 22          | 7       | 0         | 0       | 0     | 0       | 22            | 7       |
| Maryland .....                | 2                       | 1                           | 0       | 73                      | 0       | 74            | 0       | 32           | 0       | 357         | 0       | 6         | 0       | 0     | 0       | 395           | 0       |
| District of Columbia .....    | 1                       | 0                           | 0       | 8                       | 0       | 8             | 0       | 0            | 0       | 60          | 0       | 0         | 0       | 0     | 0       | 60            | 0       |
| Virginia .....                | 2                       | 2                           | 0       | 36                      | 0       | 38            | 0       | 55           | 0       | 459         | 0       | 18        | 0       | 0     | 0       | 532           | 0       |
| North Carolina .....          | 2                       | 5                           | 1       | 23                      | 2       | 25            | 2       | 99           | 77      | 210         | 0       | 9         | 0       | 0     | 0       | 318           | 77      |
| South Carolina .....          | 2                       | 4                           | 0       | 29                      | 0       | 33            | 0       | 225          | 0       | 541         | 0       | 0         | 0       | 0     | 0       | 678           | 0       |
| Georgia .....                 | 1                       | 1                           | 0       | 6                       | 0       | 6             | 0       | 15           | 0       | 110         | 0       | 0         | 0       | 0     | 0       | 125           | 0       |
| Florida .....                 | 1                       | 2                           | 0       | 13                      | 5       | 15            | 5       | 61           | 8       | 91          | 41      | 0         | 0       | 0     | 0       | 152           | 49      |
| South Central Division:       |                         |                             |         |                         |         |               |         |              |         |             |         |           |         |       |         |               |         |
| Kentucky .....                | 1                       | 4                           | 1       | 20                      | 0       | 33            | 2       | 80           | 12      | 129         | 43      | 0         | 1       | 0     | 0       | 401           | 125     |
| Alabama .....                 | 1                       | 1                           | 0       | 21                      | 0       | 22            | 0       | 19           | 0       | 235         | 4       | 12        | 1       | 0     | 0       | 266           | 5       |
| Mississippi .....             | 2                       | 14                          | 0       | 26                      | 0       | 40            | 0       | 342          | 5       | 283         | 2       | 8         | 0       | 1     | 0       | 634           | 7       |
| Texas .....                   | 1                       | 0                           | 0       | 22                      | 0       | 22            | 0       | 0            | 0       | 368         | 0       | 4         | 0       | 0     | 0       | 372           | 0       |
| Arkansas .....                | 1                       | 11                          | 7       | 22                      | 6       | 25            | 10      | 267          | 136     | 128         | 72      | 6         | 5       | 0     | 0       | 401           | 213     |
| Oklahoma .....                | 1                       | 1                           | 1       | 7                       | 0       | 8             | 1       | 49           | 41      | 28          | 26      | 0         | 0       | 0     | 0       | 77            | 67      |
| North Central Division:       |                         |                             |         |                         |         |               |         |              |         |             |         |           |         |       |         |               |         |
| Ohio .....                    | 1                       | 0                           | 0       | 20                      | 0       | 20            | 0       | 0            | 0       | 216         | 0       | 0         | 0       | 0     | 0       | 216           | 0       |
| Indiana .....                 | 2                       | 0                           | 0       | 75                      | 7       | 75            | 7       | 0            | 0       | 652         | 69      | 21        | 8       | 7     | 1       | 677           | 77      |
| Illinois .....                | 1                       | 20                          | 8       | 20                      | 8       | 20            | 8       | 236          | 74      | 94          | 17      | 0         | 0       | 0     | 0       | 330           | 91      |
| Michigan .....                | 2                       | 0                           | 0       | 44                      | 0       | 44            | 0       | 0            | 0       | 457         | 24      | 6         | 2       | 7     | 0       | 470           | 26      |
| Iowa .....                    | 1                       | 0                           | 0       | 29                      | 12      | 29            | 12      | 22           | 6       | 405         | 111     | 7         | 5       | 0     | 0       | 454           | 122     |
| North Dakota .....            | 1                       | 2                           | 1       | 11                      | 2       | 11            | 2       | 48           | 9       | 18          | 6       | 2         | 0       | 0     | 0       | 68            | 15      |
| South Dakota .....            | 2                       | 20                          | 4       | 20                      | 4       | 25            | 4       | 54           | 62      | 91          | 51      | 6         | 4       | 1     | 0       | 186           | 137     |
| Kansas .....                  | 1                       | 0                           | 0       | 27                      | 8       | 27            | 8       | 0            | 0       | 348         | 194     | 13        | 17      | 0     | 0       | 361           | 211     |
| Western Division:             |                         |                             |         |                         |         |               |         |              |         |             |         |           |         |       |         |               |         |
| Montana .....                 | 1                       | 4                           | 1       | 10                      | 2       | 11            | 3       | 43           | 29      | 35          | 41      | 0         | 0       | 0     | 0       | 78            | 70      |
| Colorado .....                | 2                       | 1                           | 0       | 25                      | 3       | 26            | 3       | 40           | 22      | 248         | 42      | 11        | 2       | 1     | 0       | 300           | 66      |
| New Mexico .....              | 1                       | 1                           | 2       | 12                      | 0       | 15            | 2       | 62           | 38      | 23          | 9       | 0         | 0       | 0     | 0       | 104           | 57      |
| Utah .....                    | 1                       | 2                           | 1       | 15                      | 3       | 19            | 4       | 168          | 61      | 81          | 49      | 0         | 1       | 0     | 0       | 249           | 111     |
| Washington .....              | 1                       | 1                           | 0       | 10                      | 2       | 11            | 2       | 89           | 48      | 33          | 16      | 0         | 0       | 0     | 0       | 122           | 64      |
| Oregon .....                  | 2                       | 1                           | 3       | 17                      | 3       | 18            | 7       | 71           | 32      | 154         | 95      | 0         | 0       | 0     | 0       | 225           | 127     |



TABLE 2.—Degrees conferred on men by schools of technology.

| State.                        | A. B. | B. S. | B. C. E. and<br>C. E. | B. M. E. and<br>M. E. | B. E. E. and<br>E. E. | B. E. | B. Agr. and<br>B. S. A. | B. S. H. | E. M. | A. C. | M. S. | M. Agr. | Ph. D. | D. V. M. | Ph. G. |
|-------------------------------|-------|-------|-----------------------|-----------------------|-----------------------|-------|-------------------------|----------|-------|-------|-------|---------|--------|----------|--------|
| United States .....           | 14    | 508   | 101                   | 171                   | 24                    | 14    | 38                      | 1        | 33    | 7     | 30    | 1       | 1      | 7        | 38     |
| North Atlantic Division ..... | 1     | 260   | 63                    | 67                    | 21                    | 14    | 8                       |          |       | 6     | 5     |         |        |          |        |
| South Atlantic Division ..... | 3     | 44    |                       | 15                    |                       |       |                         |          |       |       | 1     |         |        |          |        |
| South Central Division .....  | 10    | 53    | 17                    | 11                    | 2                     |       | 7                       | 1        |       |       | 10    |         | 1      |          |        |
| North Central Division .....  |       | 152   | 20                    | 71                    |                       |       | 10                      |          | 17    | 1     | 14    | 1       |        | 7        | 38     |
| Western Division .....        |       | 19    | 1                     | 7                     | 1                     |       | 13                      |          | 16    |       |       |         |        |          |        |
| North Atlantic Division:      |       |       |                       |                       |                       |       |                         |          |       |       |       |         |        |          |        |
| Maine .....                   |       | 3     | 15                    | 6                     |                       |       |                         |          |       |       | 1     |         |        |          |        |
| New Hampshire .....           |       | 4     |                       |                       |                       |       |                         |          |       |       |       |         |        |          |        |
| Vermont .....                 |       | 13    |                       |                       |                       |       |                         |          |       |       |       |         |        |          |        |
| Massachusetts .....           |       | 219   |                       |                       |                       |       |                         |          |       |       | 3     |         |        |          |        |
| Rhode Island .....            |       | 8     |                       |                       |                       |       |                         |          |       |       |       |         |        |          |        |
| Connecticut .....             |       |       |                       |                       |                       |       | 8                       |          |       |       |       |         |        |          |        |
| New York .....                |       | 1     | 27                    |                       |                       |       |                         |          |       |       |       |         |        |          |        |
| New Jersey .....              |       |       |                       | 45                    |                       |       |                         |          |       |       |       |         |        |          |        |
| Pennsylvania .....            | 1     | 12    | 21                    | 16                    | 21                    |       |                         |          |       | 6     | 1     |         |        |          |        |
| South Atlantic Division:      |       |       |                       |                       |                       |       |                         |          |       |       |       |         |        |          |        |
| Maryland .....                |       | 16    |                       |                       |                       |       |                         |          |       |       |       |         |        |          |        |
| Virginia .....                |       | 18    |                       | 2                     |                       |       |                         |          |       |       | 1     |         |        |          |        |
| North Carolina .....          |       | 8     |                       | 1                     |                       | 14    |                         |          |       |       |       |         |        |          |        |
| Georgia .....                 |       |       |                       | 12                    |                       |       |                         |          |       |       |       |         |        |          |        |
| Florida .....                 | 3     | 2     |                       |                       |                       |       |                         |          |       |       |       |         |        |          |        |
| South Central Division:       |       |       |                       |                       |                       |       |                         |          |       |       |       |         |        |          |        |
| Kentucky .....                | 4     | 4     | 1                     | 2                     |                       |       |                         |          |       |       |       |         |        |          |        |
| Alabama .....                 |       | 27    | 2                     |                       |                       |       |                         |          |       |       | 5     |         |        |          |        |
| Mississippi .....             |       | 21    |                       |                       |                       |       |                         |          |       |       | 5     |         |        |          |        |
| Texas .....                   |       |       | 11                    | 8                     |                       |       | 7                       | 1        |       |       |       |         |        |          |        |
| Arkansas .....                | 6     | 1     | 3                     | 1                     | 2                     |       |                         |          |       |       |       |         | 1      |          |        |
| North Central Division:       |       |       |                       |                       |                       |       |                         |          |       |       |       |         |        |          |        |
| Ohio .....                    |       | 13    |                       |                       |                       |       |                         |          |       |       |       |         |        |          |        |
| Indiana .....                 |       | 28    | 12                    | 52                    |                       |       |                         |          |       | 1     | 9     |         |        |          | 33     |
| Michigan .....                |       | 22    |                       |                       |                       |       |                         |          | 17    |       |       | 1       |        |          |        |
| Iowa .....                    |       | 15    | 8                     | 19                    |                       |       | 10                      |          |       |       |       |         |        | 7        |        |
| Missouri .....                |       | 7     |                       |                       |                       |       |                         |          |       |       |       |         |        |          |        |
| North Dakota .....            |       | 5     |                       |                       |                       |       |                         |          |       |       |       |         |        |          |        |
| South Dakota .....            |       | 6     |                       |                       |                       |       |                         |          |       |       | 3     |         |        |          | 5      |
| Kansas .....                  |       | 36    |                       |                       |                       |       |                         |          |       |       | 2     |         |        |          |        |
| Western Division:             |       |       |                       |                       |                       |       |                         |          |       |       |       |         |        |          |        |
| Colorado .....                |       | 15    |                       |                       | 1                     |       |                         |          | 16    |       |       |         |        |          |        |
| Utah .....                    |       | 1     | 1                     |                       |                       |       |                         |          |       |       |       |         |        |          |        |
| Oregon .....                  |       | 3     |                       | 7                     |                       |       | 13                      |          |       |       |       |         |        |          |        |

TABLE 3.—Degrees conferred on women by schools of technology.

| State or Territory.           | A. B. | B. S. | B. L. | B. H. E. | M. S. | Ph. G. |
|-------------------------------|-------|-------|-------|----------|-------|--------|
| United States .....           | 5     | 58    | 7     | 27       | 6     | 2      |
| North Atlantic Division ..... |       | 2     |       |          |       |        |
| South Atlantic Division ..... |       | 1     |       |          |       |        |
| South Central Division .....  | 5     | 6     |       |          | 1     |        |
| North Central Division .....  |       | 45    | 6     |          | 5     | 2      |
| Western Division .....        |       | 4     | 1     | 27       |       |        |
| North Atlantic Division:      |       |       |       |          |       |        |
| Massachusetts .....           |       | 1     |       |          |       |        |
| Rhode Island .....            |       | 1     |       |          |       |        |
| South Atlantic Division:      |       |       |       |          |       |        |
| Florida .....                 |       | 1     |       |          |       |        |
| South Central Division:       |       |       |       |          |       |        |
| Kentucky .....                | 2     | 6     |       |          |       |        |
| Alabama .....                 |       |       |       |          | 1     |        |
| Arkansas .....                | 3     |       |       |          |       |        |
| North Central Division:       |       |       |       |          |       |        |
| Indiana .....                 |       | 14    |       |          | 3     | 2      |
| Iowa .....                    |       | 6     | 6     |          |       |        |
| South Dakota .....            |       | 4     |       |          | 1     |        |
| Kansas .....                  |       | 21    |       |          | 1     |        |
| Western Division:             |       |       |       |          |       |        |
| Colorado .....                |       | 3     |       |          |       |        |
| New Mexico .....              |       | 1     |       |          |       |        |
| Oregon .....                  |       |       | 1     | 27       |       |        |

TABLE 4.—*Property held by schools of technology.*

| State or Territory.          | Number of fellow-ships. | Number of scholar-ships. | Libraries.     |             | Value of scientific apparatus and libraries. | Value of grounds and build-ings. | Amount of pro-ductive funds. |
|------------------------------|-------------------------|--------------------------|----------------|-------------|--|----------------------------------|------------------------------|
|                              |                         |                          | Bound volumes. | Pam-phlets. |  |                                  |                              |
| United States .....          | 23                      | 340                      | 446,681        | 111,759     | \$3,291,942                                  | \$12,230,734                     | \$13,609,529                 |
| North Atlantic Division..... | 0                       | 214                      | 240,693        | 43,876      | 1,111,873                                    | 6,005,041                        | 5,569,295                    |
| South Atlantic Division..... | 5                       | 81                       | 60,108         | 4,055       | 196,500                                      | 1,623,015                        | 806,960                      |
| South Central Division.....  | 11                      | 11                       | 31,794         | 22,347      | 272,501                                      | 1,292,721                        | 993,874                      |
| North Central Division.....  | 7                       | 34                       | 93,809         | 26,739      | 1,470,925                                    | 2,601,951                        | 6,099,324                    |
| Western Division .....       | 0                       | 0                        | 20,277         | 14,742      | 240,143                                      | 708,006                          | 140,076                      |
| North Atlantic Division:     |                         |                          |                |             |  |                                  |                              |
| Maine.....                   | 0                       | 0                        | 9,782          | 2,580       | 35,000                                       | 187,750                          | 219,600                      |
| New Hampshire.....           |                         | 85                       | 3,607          | 522         | 11,000                                       | 219,131                          | 80,000                       |
| Vermont.....                 | 0                       | 31                       | 12,500         |             |  | 50,000                           | 0                            |
| Massachusetts.....           |                         | 59                       | 57,631         | 17,100      | 376,196                                      | 1,752,160                        | 1,577,930                    |
| Rhode Island.....            | 0                       | 0                        | 4,530          | 13,500      | 35,000                                       | 130,000                          | 50,000                       |
| Connecticut.....             | 0                       | 0                        | 1,840          | 1,760       | 5,000  | 75,000                           | 0                            |
| New York.....                | 0                       | 0                        | 44,703         | 8,414       | 529,677                                      | 2,125,000                        | 141,765                      |
| New Jersey.....              |                         | 4                        | 9,100          |             | 55,000                                       | 266,000                          | 500,000                      |
| Pennsylvania.....            | 0                       | 35                       | 97,000         |             | 65,000                                       | 1,200,000                        | 3,000,000                    |
| South Atlantic Division:     |                         |                          |                |             |  |                                  |                              |
| Delaware.....                |                         |                          | 293            | 155         | 7,000  | 14,800                           | 0                            |
| Maryland.....                | 0                       | 26                       | 36,350         | 400         | 29,000                                       | 679,600                          | 115,943                      |
| District of Columbia.....    | 0                       | 0                        | 75             | 100         | 2,000  | 0                                | 0                            |
| Virginia.....                | 5                       | 55                       | 12,675         | 550         | 85,500                                       | 401,600                          | 314,317                      |
| North Carolina.....          |                         |                          | 2,520          | 650         | 2,000  | 120,890                          | 125,000                      |
| South Carolina.....          |                         |                          | 6,500          | 200         | 30,000                                       | 311,280                          | 95,900                       |
| Georgia.....                 | 0                       | 0                        | 0              | 0           | 35,000                                       | 50,000                           | 0                            |
| Florida.....                 | 0                       | 0                        | 1,695          | 2,000       | 6,000  | 44,845                           | 155,800                      |
| South Central Division:      |                         |                          |                |             |  |                                  |                              |
| Kentucky.....                | 0                       |                          | 2,509          | 78          | 46,000                                       | 325,000                          | 165,000                      |
| Alabama.....                 | 8                       | 11                       | 9,939          |             | 86,000                                       | 135,000                          | 253,500                      |
| Mississippi.....             | 0                       | 0                        | 6,598          | 9,069       | 18,055                                       | 240,101                          | 236,374                      |
| Texas.....                   | 0                       | 0                        | 4,500          | 3,000       | 73,946                                       | 327,620                          | 209,000                      |
| Arkansas.....                | 3                       | 0                        | 6,241          | 9,300       | 30,000                                       | 240,000                          | 130,000                      |
| Oklahoma.....                | 0                       | 0                        | 2,007          | 900         | 18,500                                       | 25,000                           | 0                            |
| North Central Division:      |                         |                          |                |             |  |                                  |                              |
| Ohio.....                    | 5                       | 32                       | 1,500          | 500         | 60,000                                       | 250,000                          | 2,000,000                    |
| Indiana.....                 | 2                       | 0                        | 13,935         | 2,596       | 299,000                                      | 540,000                          | 890,000                      |
| Illinois.....                |                         |                          | 15,000         |             | 568,000                                      | 468,000                          | 1,500,000                    |
| Michigan.....                | 0                       | 2                        | 29,333         | 8,500       | 245,589                                      | 457,760                          | 525,938                      |
| Iowa.....                    |                         |                          | 11,000         | 5,300       | 110,000                                      | 403,000                          | 681,034                      |
| North Dakota.....            |                         |                          | 2,095          | 400         | 15,500                                       | 107,500                          | 0                            |
| South Dakota.....            |                         |                          | 3,946          | 9,443       | 29,000                                       | 130,000                          | 0                            |
| Kansas.....                  | 0                       | 0                        | 17,000         |             | 143,836                                      | 245,691                          | 502,352                      |
| Western Division:            |                         |                          |                |             |  |                                  |                              |
| Montana.....                 | 0                       | 0                        | 1,800          | 750         | 10,009                                       | 15,000                           | 0                            |
| Colorado.....                | 0                       | 0                        | 8,003          | 8,400       | 96,453                                       | 251,181                          | 46,091                       |
| New Mexico.....              | 0                       | 0                        | 2,324          | 2,000       | 28,190                                       | 38,825                           | 0                            |
| Utah.....                    | 0                       | 0                        | 2,823          | 1,500       | 35,000                                       | 145,500                          | 0                            |
| Washington.....              | 0                       | 0                        | 2,852          | 1,067       | 35,000                                       | 146,000                          | 0                            |
| Oregon.....                  | 0                       | 0                        | 2,475          | 1,025       | 35,500                                       | 111,500                          | 93,985                       |

TABLE 5.—*Income and benefactions of schools of technology.*

| State or Territory.           | Income.            |                        |   |                                |                     |               | Benefactions. |
|-------------------------------|--------------------|------------------------|---|--------------------------------|---------------------|---------------|---------------|
|                               | From tuition fees. | From productive funds. | From State or municipal appropriations. | From United States Government. | From other sources. | Total income. |               |
| United States .....           | \$524, 158         | \$657, 536             | \$880, 198                              | \$1, 671, 828                  | \$231, 873          | \$3, 965, 593 | \$21, 530     |
| North Atlantic Division ..... | 398, 268           | 272, 516               | 216, 500                                | 546, 535                       | 51, 949             | 1, 485, 768   | 10, 200       |
| South Atlantic Division ..... | 58, 298            | 49, 163                | 188, 530                                | 516, 588                       | 43, 289             | 855, 868      | 1, 000        |
| South Central Division .....  | 6, 126             | 62, 002                | 114, 601                                | 187, 705                       | 20, 501             | 390, 935      | 10, 300       |
| North Central Division .....  | 56, 073            | 264, 453               | 203, 683                                | 211, 000                       | 99, 172             | 834, 381      | .....         |
| Western Division .....        | 5, 393             | 9, 402                 | 156, 884                                | 210, 000                       | 16, 962             | 398, 641      | .....         |
| North Atlantic Division:      |                    |                        |   |                                |                     |               |               |
| Maine .....                   | 0                  | 9, 915                 | 11, 500                                 | 35, 000                        | 6, 670              | 63, 085       | .....         |
| New Hampshire .....           | 5, 213             | 4, 800                 | 0                                       | 35, 000                        | 3, 581              | 48, 594       | 230           |
| Vermont .....                 | 4, 850             | 0                      | 0                                       | 0                              | 0                   | 4, 850        | .....         |
| Massachusetts .....           | 242, 033           | 78, 301                | 125, 000                                | 35, 000                        | 41, 698             | 522, 032      | 10, 000       |
| Rhode Island .....            | 0                  | 2, 500                 | 50, 000                                 | 35, 000                        | 0                   | 87, 500       | .....         |
| Connecticut .....             | 1, 682             | 0                      | 20, 000                                 | 0                              | 0                   | 21, 682       | .....         |
| New York .....                | 30, 570            | 7, 000                 | 0                                       | 406, 535                       | 0                   | 444, 105      | .....         |
| New Jersey .....              | 64, 020            | 20, 000                | 10, 000                                 | 0                              | 0                   | 94, 020       | .....         |
| Pennsylvania .....            | 49, 900            | 150, 000               | 0                                       | 0                              | 0                   | 199, 900      | .....         |
| South Atlantic Division:      |                    |                        |   |                                |                     |               |               |
| Delaware .....                | 0                  | 0                      | 0                                       | 4, 000                         | 853                 | 4, 853        | .....         |
| Maryland .....                | 17, 757            | 6, 143                 | 15, 000                                 | 399, 255                       | 14, 631             | 452, 786      | .....         |
| District of Columbia .....    | 4, 346             | 0                      | 0                                       | 0                              | 0                   | 4, 346        | .....         |
| Virginia .....                | 10, 000            | 20, 659                | 48, 500                                 | 28, 333                        | 16, 700             | 124, 201      | .....         |
| North Carolina .....          | 3, 395             | 7, 500                 | 17, 500                                 | 35, 000                        | 1, 250              | 64, 645       | .....         |
| South Carolina .....          | 20, 300            | 5, 754                 | 85, 000                                 | 25, 000                        | 8, 396              | 144, 450      | .....         |
| Georgia .....                 | 2, 500             | 0                      | 22, 530                                 | 0                              | 0                   | 25, 030       | 0             |
| Florida .....                 | 0                  | 9, 167                 | 0                                       | 25, 000                        | 1, 450              | 35, 557       | 0             |
| South Central Division:       |                    |                        |   |                                |                     |               |               |
| Kentucky .....                | 1, 349             | 4, 950                 | 31, 956                                 | 32, 100                        | 6, 935              | 77, 290       | 500           |
| Alabama .....                 | 1, 145             | 20, 280                | 5, 011                                  | 26, 060                        | 3, 563              | 56, 059       | 500           |
| Mississippi .....             | 660                | 11, 592                | 24, 571                                 | 35, 000                        | 10, 003             | 81, 826       | .....         |
| Texas .....                   | 0                  | 14, 780                | 24, 500                                 | 30, 000                        | 0                   | 69, 280       | .....         |
| Arkansas .....                | 2, 972             | 10, 400                | 29, 500                                 | 29, 545                        | .....               | 63, 477       | .....         |
| Oklahoma .....                | 0                  | 0                      | 8, 003                                  | 35, 000                        | 0                   | 43, 003       | 0             |
| North Central Division:       |                    |                        |   |                                |                     |               |               |
| Ohio .....                    | 15, 000            | 60, 000                | 0                                       | 0                              | 0                   | 75, 000       | .....         |
| Indiana .....                 | 10, 400            | 52, 000                | 30, 000                                 | 35, 000                        | 32, 804             | 160, 204      | 10, 000       |
| Illinois .....                | 24, 000            | 50, 000                | 0                                       | 0                              | 0                   | 74, 000       | .....         |
| Michigan .....                | 6, 673             | 30, 000                | 51, 775                                 | 35, 000                        | 8, 405              | 131, 853      | .....         |
| Iowa .....                    | 0                  | 43, 291                | 46, 278                                 | 36, 000                        | 48, 308             | 173, 877      | .....         |
| North Dakota .....            | 0                  | 0                      | 52, 000                                 | 35, 000                        | 0                   | 87, 000       | 300           |
| South Dakota .....            | 0                  | 0                      | 18, 200                                 | 35, 000                        | 2, 663              | 55, 863       | .....         |
| Kansas .....                  | 0                  | 29, 162                | 5, 430                                  | 35, 000                        | 6, 992              | 76, 584       | 0             |
| Western Division:             |                    |                        |   |                                |                     |               |               |
| Montana .....                 | 1, 500             | 0                      | 2, 500                                  | 35, 000                        | 0                   | 39, 000       | .....         |
| Colorado .....                | 0                  | 4, 249                 | 78, 782                                 | 35, 000                        | 4, 343              | 122, 374      | 0             |
| New Mexico .....              | 707                | 0                      | 9, 140                                  | 35, 000                        | 89                  | 44, 936       | 0             |
| Utah .....                    | 1, 686             | 0                      | 7, 500                                  | 35, 000                        | 3, 882              | 48, 068       | .....         |
| Washington .....              | 0                  | 0                      | 58, 962                                 | 35, 000                        | 2, 442              | 96, 404       | .....         |
| Oregon .....                  | 1, 500             | 5, 153                 | 0                                       | 35, 000                        | 6, 206              | 47, 859       | .....         |

## COMPARATIVE STATISTICS OF HIGHER EDUCATION (1890-1895).

## I.—UNIVERSITIES AND COLLEGES.

In the following pages will be found 19 tables giving the statistics concerning the principal items collected by this Bureau from the universities and colleges during the five years from 1890-91 to 1894-95, both inclusive. In the year 1890-91 statistics concerning the financial condition of these institutions were not collected, so that in the tables devoted to finances the statistics for 1889-90 are used. In the preparation of these tables it was found that there existed some incongruities in the statistics as reported from year to year, especially in the items concerning the value of the material equipment and in the amount of productive funds. These differences were due to the fact that some of

the reports were made in successive years by different persons who placed different estimates on the value of buildings, etc. In other cases the differences were due to depreciation in the value of real estate and in stocks held by the various institutions. An attempt was made to correct all incongruities due to varying estimates by examining and comparing the reports of the several institutions for a series of years, and this has resulted in obtaining statistics which more truly represent the actual condition of these institutions. It should be borne in mind that it has been necessary to change the figures of individual institutions and that the summaries as given in the following pages will differ in some respects from the summaries as included in the several reports from 1890-91 to 1893-94.

The number of institutions was increased from 430 in 1890-91 to 481 in 1894-95. The rate of increase in some of the principal items concerning higher education is given in the following summarized statement:

| Division.                  | Institu-<br>tions. | Pro-<br>fessors. | Stu-<br>dents.   | Libra-<br>ries.  | Appa-<br>ratus.  | Grounds<br>and<br>build-<br>ings. | Produc-<br>tive<br>funds. | Income.          |
|----------------------------|--------------------|------------------|------------------|------------------|------------------|-----------------------------------|---------------------------|------------------|
|                            | <i>Per cent.</i>   | <i>Per cent.</i> | <i>Per cent.</i> | <i>Per cent.</i> | <i>Per cent.</i> | <i>Per cent.</i>                  | <i>Per cent.</i>          | <i>Per cent.</i> |
| United States.....         | 11.9               | 36.7             | 20.3             | 35.6             | 49.8             | 67.2                              | 32.6                      | 53.0             |
| North Atlantic Division... | 5.5                | 33.3             | 27.3             | 25.6             | 31.0             | 69.9                              | 32.4                      | 45.1             |
| South Atlantic Division... | 21.4               | 36.0             | 22.8             | 27.3             | 21.7             | 70.9                              | 20.7                      | 58.7             |
| South Central Division...  | 14.5               | 25.9             | 5.2              | 25.3             | 58.2             | 49.2                              | 12.8                      | 27.2             |
| North Central Division.... | 5.7                | 35.3             | 17.0             | 52.3             | 90.2             | 49.0                              | 43.5                      | 55.5             |
| Western Division.....      | 40.6               | 77.9             | 57.4             | 86.3             | 106.6            | 154.3                             | 31.4                      | 144.1            |

This statement shows that the largest per cent of increase in all the items included except productive funds has been in the Western Division, where the number of institutions was increased from 32 in 1890-91 to 45 in 1894-95. The establishment of the Leland Stanford Junior University was one of the principal causes of the large per cent of increase in this division, but had no effect upon the productive funds, as its endowment is still retained under the sole management and control of Mrs. Stanford. The greatest per cent in increase of productive funds is found in the North Central Division. This division is the home of the University of Chicago, which was opened for instruction in 1892-93 and has been liberally provided with endowment funds.

The average number of students per institution during the several years under consideration was as follows:

*Average number of students per institution.*

| Division.                    | 1890-91. | 1891-92. | 1892-93. | 1893-94. | 1894-95. |
|------------------------------|----------|----------|----------|----------|----------|
| United States.....           | 290      | 302      | 311      | 302      | 312      |
| North Atlantic Division..... | 381      | 395      | 413      | 443      | 460      |
| South Atlantic Division..... | 220      | 230      | 228      | 220      | 222      |
| South Central Division.....  | 261      | 275      | 269      | 244      | 240      |
| North Central Division.....  | 299      | 317      | 326      | 314      | 331      |
| Western Division.....        | 217      | 192      | 225      | 227      | 243      |



In obtaining the above averages, all classes of students—preparatory, collegiate, graduate, professional, normal, music, etc.—were included. In the following tabular statement the average number of undergraduate college students per institution is given:

*Average number of college students per institution.*

| Division.                     | 1890-91. | 1891-92. | 1892-93. | 1893-94. | 1894-95. |
|-------------------------------|----------|----------|----------|----------|----------|
| United States .....           | 111      | 119      | 123      | 126      | 132      |
| North Atlantic Division ..... | 193      | 222      | 231      | 249      | 253      |
| South Atlantic Division ..... | 89       | 94       | 90       | 89       | 92       |
| South Central Division .....  | 102      | 97       | 88       | 95       | 99       |
| North Central Division .....  | 98       | 103      | 111      | 113      | 120      |
| Western Division .....        | 53       | 67       | 87       | 89       | 103      |

From this table it will be seen that the North Atlantic Division has more than twice the average number of students per institution than shown by either of the other geographical divisions; also that the number of students per institution has gradually increased in the North Atlantic, North Central, and Western divisions, while in the South Atlantic and South Central divisions the average number has varied very slightly.

The average number of instructors per institution in the several divisions was as follows:

*Average number of instructors per institution.*

| Division.                     | 1890-91. | 1891-92. | 1892-93. | 1893-94. | 1894-95. |
|-------------------------------|----------|----------|----------|----------|----------|
| United States .....           | 20       | 21       | 23       | 23       | 24       |
| North Atlantic Division ..... | 33       | 33       | 37       | 40       | 42       |
| South Atlantic Division ..... | 15       | 17       | 19       | 17       | 17       |
| South Central Division .....  | 14       | 15       | 15       | 14       | 15       |
| North Central Division .....  | 18       | 20       | 21       | 21       | 23       |
| Western Division .....        | 19       | 19       | 22       | 23       | 24       |

Taking into consideration only the instructors in the regular collegiate departments, it is found that the average number of such instructors per institution was as follows:

*Average number of instructors in collegiate departments.*

| Division.                     | 1890-91. | 1891-92. | 1892-93. | 1893-94. | 1894-95. |
|-------------------------------|----------|----------|----------|----------|----------|
| United States .....           | 11       | 12       | 13       | 13       | 14       |
| North Atlantic Division ..... | 18       | 20       | 22       | 24       | 25       |
| South Atlantic Division ..... | 10       | 10       | 11       | 10       | 11       |
| South Central Division .....  | 8        | 8        | 8        | 8        | 8        |
| North Central Division .....  | 10       | 11       | 11       | 13       | 13       |
| Western Division .....        | 9        | 10       | 11       | 12       | 13       |

Here it is observed that the average number of collegiate instructors per institution increased from 11 in 1890-91 to 14 in 1894-95. In the North Atlantic, North Central, and Western divisions there has

been a marked advance in this respect, while in the South Atlantic Division the average number has been increased by 1, and in the South Central Division there has been no change, the average number remaining the same.

During the past five years there has been very little variation in the number of college students to each instructor, as will be seen by the following statement:

*Average number of college students to each instructor.*

| Division.                    | 1890-91. | 1891-92. | 1892-93. | 1893-94. | 1894-95. |
|------------------------------|----------|----------|----------|----------|----------|
| United States.....           | 10       | 10       | 10       | 10       | 10       |
| North Atlantic Division..... | 11       | 11       | 11       | 11       | 10       |
| South Atlantic Division..... | 9        | 9        | 8        | 9        | 9        |
| South Central Division.....  | 13       | 12       | 11       | 12       | 12       |
| North Central Division.....  | 10       | 10       | 10       | 9        | 9        |
| Western Division.....        | 7        | 7        | 8        | 7        | 8        |

The Western Division comprises within its borders many of the newer States, in which new institutions have been established within the past ten years. These institutions, owing to the fact that there are few preparatory schools in some of the newer States which fit students for college work, have but few students in college classes, the large majority of them being in preparatory classes. This fact tends to lower the average number of students per instructor in this division.

As stated before, statistics concerning financial matters were not collected in the year 1890-91. The average annual income of universities and colleges for the four years from 1891-92 to 1894-95 was as follows:

*Average annual income.*

| Division.                    | 1891-92.  | 1892-93.  | 1893-94.  | 1894-95.  |
|------------------------------|-----------|-----------|-----------|-----------|
| United States.....           | \$31, 975 | \$32, 375 | \$32, 806 | \$34, 893 |
| North Atlantic Division..... | 73, 198   | 75, 149   | 84, 836   | 88, 008   |
| South Atlantic Division..... | 22, 577   | 23, 868   | 20, 128   | 21, 491   |
| South Central Division.....  | 16, 904   | 15, 208   | 14, 157   | 14, 834   |
| North Central Division.....  | 24, 451   | 24, 569   | 26, 102   | 29, 311   |
| Western Division.....        | 31, 019   | 33, 159   | 29, 218   | 28, 349   |

Here it is noticed that while the increase in the average income of institutions for the entire country was but \$2,918, the increase in the North Atlantic Division was nearly \$15,000. The only other division that shows an increase is the North Central Division, where the increase is \$4,860 per institution.

The statistics, by States and Territories, concerning universities and colleges for the years 1890-91 to 1894-95 are given in the following pages:

TABLE 1.—*Number of universities and colleges and the number of students in attendance from 1890-91 to 1894-95.*

| State or Territory.          | Number of institutions. |          |          |          |          | Total number of students. |          |          |          |          |
|------------------------------|-------------------------|----------|----------|----------|----------|---------------------------|----------|----------|----------|----------|
|                              | 1890-91.                | 1891-92. | 1892-93. | 1893-94. | 1894-95. | 1890-91.                  | 1891-92. | 1892-93. | 1893-94. | 1894-95. |
| United States.....           | 430                     | 442      | 451      | 476      | 481      | 124,684                   | 133,683  | 140,053  | 143,632  | 149,939  |
| North Atlantic Division..... | 73                      | 77       | 78       | 76       | 77       | 27,802                    | 30,381   | 32,234   | 33,651   | 35,383   |
| South Atlantic Division..... | 56                      | 57       | 59       | 65       | 68       | 12,316                    | 13,109   | 13,437   | 14,328   | 15,123   |
| South Central Division.....  | 76                      | 73       | 74       | 85       | 87       | 19,873                    | 20,092   | 19,875   | 20,777   | 20,910   |
| North Central Division.....  | 193                     | 200      | 204      | 208      | 204      | 57,742                    | 63,379   | 66,415   | 65,344   | 67,580   |
| Western Division.....        | 32                      | 35       | 36       | 42       | 45       | 6,951                     | 6,722    | 8,092    | 9,532    | 10,943   |
| North Atlantic Division:     |                         |          |          |          |          |                           |          |          |          |          |
| Maine.....                   | 3                       | 3        | 3        | 3        | 3        | 612                       | 624      | 668      | 715      | 776      |
| New Hampshire.....           | 1                       | 1        | 1        | 1        | 1        | 492                       | 426      | 458      | 494      | 509      |
| Vermont.....                 | 2                       | 2        | 2        | 2        | 2        | 442                       | 536      | 499      | 537      | 521      |
| Massachusetts.....           | 9                       | 9        | 9        | 9        | 9        | 4,857                     | 5,279    | 5,789    | 6,244    | 6,412    |
| Rhode Island.....            | 1                       | 1        | 1        | 1        | 1        | 352                       | 403      | 549      | 664      | 742      |
| Connecticut.....             | 3                       | 3        | 3        | 3        | 3        | 2,031                     | 2,172    | 2,379    | 2,596    | 2,762    |
| New York.....                | 23                      | 23       | 23       | 23       | 22       | 10,859                    | 11,114   | 11,014   | 11,615   | 11,629   |
| New Jersey.....              | 5                       | 5        | 5        | 4        | 4        | 1,354                     | 1,469    | 1,802    | 1,738    | 1,713    |
| Pennsylvania.....            | 26                      | 30       | 31       | 30       | 32       | 6,833                     | 8,358    | 9,076    | 9,048    | 10,319   |
| South Atlantic Division:     |                         |          |          |          |          |                           |          |          |          |          |
| Delaware.....                | 1                       | 1        | 1        | 1        | 1        | 81                        | 97       | 90       | 80       | 78       |
| Maryland.....                | 10                      | 10       | 10       | 10       | 10       | 1,885                     | 2,269    | 2,184    | 2,064    | 2,180    |
| District of Columbia.....    | 4                       | 4        | 4        | 4        | 5        | 1,865                     | 2,160    | 2,164    | 2,330    | 2,461    |
| Virginia.....                | 7                       | 8        | 8        | 9        | 10       | 1,593                     | 1,753    | 1,759    | 1,971    | 2,235    |
| West Virginia.....           | 3                       | 3        | 4        | 4        | 4        | 424                       | 463      | 613      | 601      | 611      |
| North Carolina.....          | 11                      | 11       | 11       | 13       | 13       | 2,407                     | 2,338    | 2,300    | 2,860    | 2,643    |
| South Carolina.....          | 9                       | 8        | 9        | 9        | 9        | 1,364                     | 1,382    | 1,713    | 1,571    | 1,672    |
| Georgia.....                 | 7                       | 8        | 8        | 10       | 11       | 2,152                     | 2,055    | 2,042    | 2,252    | 2,504    |
| Florida.....                 | 4                       | 4        | 4        | 5        | 5        | 545                       | 592      | 572      | 599      | 679      |
| South Central Division:      |                         |          |          |          |          |                           |          |          |          |          |
| Kentucky.....                | 13                      | 13       | 13       | 15       | 15       | 2,514                     | 3,211    | 3,602    | 3,554    | 3,279    |
| Tennessee.....               | 24                      | 22       | 23       | 23       | 24       | 6,094                     | 6,283    | 6,159    | 6,227    | 6,953    |
| Alabama.....                 | 7                       | 8        | 7        | 9        | 9        | 1,730                     | 1,689    | 1,283    | 1,652    | 1,558    |
| Mississippi.....             | 5                       | 5        | 5        | 5        | 5        | 1,086                     | 1,016    | 986      | 1,020    | 1,038    |
| Louisiana.....               | 10                      | 9        | 9        | 9        | 9        | 3,821                     | 3,751    | 3,900    | 2,904    | 2,313    |
| Texas.....                   | 12                      | a 11     | a 11     | 13       | 14       | 3,546                     | 3,034    | 3,513    | 3,839    | 3,938    |
| Arkansas.....                | 5                       | 5        | 5        | 9        | 8        | 1,082                     | 1,108    | 1,111    | 1,348    | 1,484    |
| Oklahoma.....                |                         |          | 1        | 1        | 1        |                           |          | 121      | 163      | 186      |
| Indian Territory.....        |                         |          |          | 1        | 2        |                           |          |          | 70       | 161      |
| North Central Division:      |                         |          |          |          |          |                           |          |          |          |          |
| Ohio.....                    | 37                      | 38       | 38       | 40       | 38       | 12,190                    | 12,283   | 12,854   | 12,086   | 12,662   |
| Indiana.....                 | 15                      | 15       | 15       | 15       | 15       | 4,281                     | 4,652    | 4,439    | 4,020    | 4,079    |
| Illinois.....                | 28                      | 27       | 28       | 31       | 31       | 10,472                    | 11,166   | 11,546   | 13,252   | 14,745   |
| Michigan.....                | 11                      | 12       | 12       | 11       | 11       | 5,384                     | 6,593    | 6,434    | 5,979    | 6,257    |
| Wisconsin.....               | 9                       | 10       | 10       | 10       | 10       | 2,602                     | 3,085    | 3,148    | 3,023    | 3,285    |
| Minnesota.....               | 11                      | 11       | 12       | 11       | 11       | 2,994                     | 3,187    | 3,531    | 3,525    | 3,832    |
| Iowa.....                    | 22                      | 24       | 24       | 23       | 23       | 7,042                     | 7,339    | 7,594    | 6,665    | 6,615    |
| Missouri.....                | 27                      | 27       | 29       | 30       | 28       | 5,791                     | 7,238    | 7,576    | 7,219    | 6,741    |
| North Dakota.....            | 3                       | 4        | 4        | 3        | 3        | 232                       | 514      | 517      | 420      | 444      |
| South Dakota.....            | 6                       | 6        | 6        | 6        | 6        | 1,008                     | 925      | 1,130    | 1,032    | 955      |
| Nebraska.....                | 8                       | 9        | 9        | 10       | 10       | 1,801                     | 2,036    | 2,560    | 3,455    | 3,442    |
| Kansas.....                  | 16                      | 17       | 17       | 18       | 18       | 3,945                     | 4,361    | 5,086    | 4,659    | 4,523    |
| Western Division:            |                         |          |          |          |          |                           |          |          |          |          |
| Montana.....                 | 1                       | 1        | 1        | 1        | 1        | 127                       | 100      | 84       | 97       | 41       |
| Wyoming.....                 | 1                       | 1        | 1        | 1        | 1        | 75                        | 120      | 108      | 108      | 106      |
| Colorado.....                | 4                       | 4        | 4        | 4        | 5        | 1,160                     | 674      | 1,095    | 713      | 1,109    |
| New Mexico.....              |                         |          | 1        | 1        | 1        |                           |          | 108      | 144      | 93       |
| Arizona.....                 |                         | 1        | 1        | 1        | 1        |                           | 31       | 38       | 58       | 53       |
| Utah.....                    | 1                       | 1        | 1        | 1        | 2        | 335                       | 136      | 368      | 385      | 748      |
| Nevada.....                  | 1                       | 1        | 1        | 1        | 1        | 163                       | 155      | 186      | 192      | 265      |
| Idaho.....                   |                         |          | 1        | 1        | 1        |                           |          | 135      | 232      | 220      |
| Washington.....              | 4                       | 5        | 5        | 7        | 9        | 656                       | 616      | 630      | 1,066    | 1,102    |
| Oregon.....                  | 6                       | 6        | 6        | 8        | 8        | 1,127                     | 1,144    | 1,112    | 1,486    | 1,579    |
| California.....              | 14                      | 15       | 14       | 16       | 15       | 3,308                     | 3,746    | 4,228    | 5,051    | 5,627    |

a Statistics of Baylor University, Waco, Tex., could not be obtained.

TABLE 2.—*Professors and instructors in preparatory departments of universities and colleges from 1890-91 to 1894-95.*

| State or Territory.         | 1890-91. |          | 1891-92. |          | 1892-93. |          | 1893-94. |          | 1894-95. |          |
|-----------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
|                             | Male.    | Fe-male. | Male.    | Fe-male. | Male.    | Fe-male. | Male.    | Fe-male. | Male.    | Fe-male. |
| United States.....          | 1,562    | 589      | 1,719    | 694      | 1,803    | 737      | 1,902    | 807      | 1,866    | 803      |
| North Atlantic Division.... | 235      | 22       | 260      | 34       | 309      | 44       | 298      | 49       | 296      | 45       |
| South Atlantic Division.... | 167      | 56       | 175      | 74       | 212      | 84       | 203      | 77       | 178      | 84       |
| South Central Division....  | 173      | 123      | 175      | 130      | 198      | 117      | 217      | 138      | 220      | 146      |
| North Central Division....  | 879      | 338      | 971      | 398      | 966      | 429      | 1,017    | 450      | 965      | 434      |
| Western Division.....       | 108      | 50       | 138      | 58       | 118      | 63       | 167      | 93       | 207      | 94       |
| North Atlantic Division:    |          |          |          |          |          |          |          |          |          |          |
| Maine.....                  | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        |
| New Hampshire.....          | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        |
| Vermont.....                | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        |
| Massachusetts.....          | 31       | 2        | 26       | 2        | 29       | 2        | 31       | 1        | 26       | 2        |
| Rhode Island.....           | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        |
| Connecticut.....            | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        |
| New York.....               | 113      | 6        | 137      | 15       | 152      | 13       | 158      | 12       | 153      | 9        |
| New Jersey.....             | 5        | 0        | 7        | 0        | 22       | 4        | 20       | 4        | 19       | 4        |
| Pennsylvania.....           | 86       | 14       | 90       | 17       | 106      | 25       | 89       | 32       | 98       | 30       |
| South Atlantic Division:    |          |          |          |          |          |          |          |          |          |          |
| Delaware.....               | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        | 0        |
| Maryland.....               | 40       | 12       | 44       | 12       | 62       | 9        | 58       | 10       | 42       | 10       |
| District of Columbia....    | 29       | 0        | 28       | 0        | 31       | 2        | 30       | 0        | 31       | 0        |
| Virginia.....               | 20       | 2        | 18       | 3        | 20       | 3        | 30       | 4        | 23       | 3        |
| West Virginia.....          | 7        | 1        | 8        | 1        | 9        | 2        | 3        | 1        | 3        | 1        |
| North Carolina.....         | 26       | 18       | 30       | 14       | 24       | 19       | 31       | 18       | 23       | 15       |
| South Carolina.....         | 22       | 4        | 17       | 8        | 35       | 16       | 20       | 7        | 17       | 8        |
| Georgia.....                | 9        | 7        | 16       | 15       | 20       | 14       | 19       | 16       | 24       | 25       |
| Florida.....                | 14       | 12       | 14       | 21       | 11       | 19       | 12       | 21       | 15       | 22       |
| South Central Division:     |          |          |          |          |          |          |          |          |          |          |
| Kentucky.....               | 29       | 13       | 28       | 6        | 33       | 12       | 28       | 19       | 32       | 17       |
| Tennessee.....              | 72       | 45       | 61       | 51       | 61       | 44       | 68       | 47       | 67       | 46       |
| Alabama.....                | 4        | 9        | 7        | 9        | 6        | 7        | 13       | 7        | 12       | 7        |
| Mississippi.....            | 7        | 7        | 10       | 7        | 15       | 4        | 10       | 5        | 10       | 5        |
| Louisiana.....              | 31       | 17       | 43       | 24       | 39       | 22       | 41       | 18       | 29       | 19       |
| Texas.....                  | 24       | 24       | 18       | 23       | 29       | 20       | 43       | 25       | 51       | 33       |
| Arkansas.....               | 6        | 8        | 8        | 10       | 11       | 8        | 12       | 12       | 10       | 12       |
| Oklahoma.....               |          |          |          |          | 4        | 0        | 2        | 1        | 5        | 0        |
| Indian Territory.....       |          |          |          |          |          |          | 0        | 4        | 4        | 7        |
| North Central Division:     |          |          |          |          |          |          |          |          |          |          |
| Ohio.....                   | 177      | 71       | 190      | 58       | 195      | 64       | 188      | 69       | 180      | 67       |
| Indiana.....                | 64       | 16       | 73       | 21       | 72       | 16       | 69       | 17       | 74       | 21       |
| Illinois.....               | 151      | 67       | 150      | 51       | 159      | 65       | 173      | 66       | 173      | 78       |
| Michigan.....               | 43       | 23       | 48       | 29       | 56       | 27       | 67       | 36       | 42       | 21       |
| Wisconsin.....              | 43       | 11       | 38       | 8        | 34       | 14       | 41       | 12       | 53       | 14       |
| Minnesota.....              | 62       | 9        | 48       | 13       | 38       | 13       | 50       | 20       | 42       | 13       |
| Iowa.....                   | 75       | 50       | 82       | 66       | 109      | 70       | 78       | 53       | 68       | 52       |
| Missouri.....               | 116      | 36       | 164      | 79       | 98       | 71       | 103      | 81       | 102      | 81       |
| North Dakota.....           | 10       | 4        | 17       | 6        | 21       | 11       | 20       | 11       | 18       | 8        |
| South Dakota.....           | 37       | 21       | 30       | 17       | 35       | 23       | 31       | 17       | 30       | 14       |
| Nebraska.....               | 40       | 13       | 38       | 16       | 55       | 21       | 88       | 37       | 80       | 30       |
| Kansas.....                 | 61       | 17       | 93       | 34       | 94       | 34       | 100      | 31       | 103      | 35       |
| Western Division:           |          |          |          |          |          |          |          |          |          |          |
| Montana.....                | 3        | 3        | 1        | 1        | 3        | 1        | 3        | 2        | 5        | 2        |
| Wyoming.....                | 6        | 1        | 7        | 3        | 6        | 1        | 1        | 1        | 10       | 2        |
| Colorado.....               | 23       | 11       | 27       | 8        | 13       | 6        | 15       | 7        | 49       | 11       |
| New Mexico.....             |          |          |          |          | 3        | 4        | 3        | 4        | 4        | 4        |
| Arizona.....                |          |          | 1        | 0        | 2        | 0        | 6        | 2        | 2        | 1        |
| Utah.....                   | 9        | 0        | 8        | 0        | 10       | 1        | 13       | 2        | 19       |          |
| Nevada.....                 | 2        | 2        | 2        | 2        | 4        | 2        | 4        | 3        |          | 3        |
| Idaho.....                  |          |          |          |          | 4        | 2        | 10       | 3        | 10       | 9        |
| Washington.....             | 12       | 8        | 16       | 10       | 8        | 7        | 16       | 14       | 26       | 15       |
| Oregon.....                 | 11       | 5        | 19       | 8        | 15       | 10       | 38       | 24       | 19       | 13       |
| California.....             | 42       | 20       | 57       | 26       | 50       | 29       | 58       | 31       | 63       | 34       |



TABLE 3.—*Professors and instructors in collegiate departments of universities and colleges from 1890-91 to 1894-95.*

| State or Territory.          | 1890-91. |          | 1891-92. |          | 1892-93. |          | 1893-94. |          | 1894-95. |          |
|------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
|                              | Male.    | Fe-male. | Male.    | Fe-male. | Male.    | Fe-male. | Male.    | Fe-male. | Male.    | Fe-male. |
| United States.....           | 4,220    | 499      | 4,693    | 517      | 5,120    | 559      | 5,597    | 663      | 5,832    | 696      |
| North Atlantic Division..... | 1,286    | 32       | 1,494    | 41       | 1,648    | 48       | 1,762    | 37       | 1,861    | 49       |
| South Atlantic Division..... | 503      | 46       | 551      | 46       | 607      | 52       | 620      | 49       | 652      | 67       |
| South Central Division.....  | 513      | 92       | 517      | 91       | 506      | 84       | 574      | 105      | 589      | 112      |
| North Central Division.....  | 1,696    | 272      | 1,845    | 276      | 2,022    | 329      | 2,197    | 463      | 2,281    | 387      |
| Western Division.....        | 217      | 57       | 286      | 63       | 337      | 55       | 444      | 72       | 509      | 90       |
| North Atlantic Division:     |          |          |          |          |          |          |          |          |          |          |
| Maine.....                   | 37       | 0        | 41       | 0        | 38       | 0        | 41       | 0        | 40       | 0        |
| New Hampshire.....           | 13       | 0        | 25       | 0        | 34       | 0        | 30       | 0        | 31       | 0        |
| Vermont.....                 | 32       | 0        | 33       | 0        | 33       | 0        | 35       | 0        | 35       | 0        |
| Massachusetts.....           | 233      | 3        | 259      | 3        | 284      | 3        | 305      | 2        | 321      | 3        |
| Rhode Island.....            | 35       | 0        | 47       | 0        | 53       | 0        | 64       | 0        | 83       | 0        |
| Connecticut.....             | 99       | 0        | 133      | 0        | 146      | 0        | 163      | 0        | 171      | 0        |
| New York.....                | 416      | 7        | 495      | 9        | 540      | 10       | 576      | 6        | 595      | 5        |
| New Jersey.....              | 109      | 0        | 106      | 0        | 117      | 0        | 121      | 0        | 123      | 0        |
| Pennsylvania.....            | 307      | 22       | 363      | 29       | 398      | 35       | 427      | 23       | 462      | 32       |
| South Atlantic Division:     |          |          |          |          |          |          |          |          |          |          |
| Delaware.....                | 8        | 0        | 12       | 0        | 13       | 0        | 13       | 0        | 12       | 0        |
| Maryland.....                | 140      | 15       | 133      | 14       | 161      | 15       | 143      | 12       | 144      | 11       |
| District of Columbia.....    | 37       | 0        | 78       | 3        | 78       | 2        | 92       | 3        | 112      | 4        |
| Virginia.....                | 87       | 0        | 95       | 2        | 98       | 6        | 108      | 7        | 113      | 8        |
| West Virginia.....           | 24       | 1        | 24       | 1        | 29       | 4        | 23       | 1        | 26       | 1        |
| North Carolina.....          | 77       | 6        | 84       | 7        | 93       | 9        | 94       | 11       | 92       | 8        |
| South Carolina.....          | 69       | 5        | 54       | 1        | 63       | 2        | 64       | 6        | 63       | 3        |
| Georgia.....                 | 43       | 6        | 56       | 10       | 56       | 5        | 63       | 7        | 65       | 19       |
| Florida.....                 | 18       | 13       | 15       | 8        | 16       | 9        | 20       | 2        | 25       | 13       |
| South Central Division:      |          |          |          |          |          |          |          |          |          |          |
| Kentucky.....                | 79       | 12       | 90       | 7        | 83       | 15       | 83       | 13       | 90       | 13       |
| Tennessee.....               | 156      | 31       | 166      | 34       | 169      | 30       | 186      | 28       | 184      | 41       |
| Alabama.....                 | 67       | 3        | 62       | 5        | 45       | 1        | 65       | 4        | 63       | 5        |
| Mississippi.....             | 33       | 5        | 33       | 5        | 32       | 6        | 32       | 3        | 30       | 1        |
| Louisiana.....               | 87       | 19       | 71       | 15       | 79       | 18       | 70       | 13       | 80       | 19       |
| Texas.....                   | 79       | 16       | 74       | 18       | 73       | 7        | 93       | 14       | 96       | 15       |
| Arkansas.....                | 17       | 6        | 21       | 7        | 21       | 7        | 28       | 14       | 36       | 12       |
| Oklahoma.....                |          |          |          |          | 4        | 0        | 4        | 0        | 5        | 0        |
| Indian Territory.....        |          |          |          |          |          |          | 3        | 1        | 5        | 6        |
| North Central Division:      |          |          |          |          |          |          |          |          |          |          |
| Ohio.....                    | 303      | 47       | 333      | 42       | 363      | 51       | 404      | 63       | 403      | 50       |
| Indiana.....                 | 167      | 19       | 172      | 20       | 173      | 15       | 193      | 22       | 199      | 20       |
| Illinois.....                | 252      | 36       | 263      | 23       | 369      | 52       | 423      | 53       | 462      | 54       |
| Michigan.....                | 149      | 15       | 150      | 20       | 165      | 28       | 171      | 29       | 178      | 20       |
| Wisconsin.....               | 120      | 15       | 115      | 11       | 130      | 15       | 123      | 11       | 145      | 19       |
| Minnesota.....               | 119      | 13       | 132      | 10       | 139      | 16       | 168      | 32       | 159      | 24       |
| Iowa.....                    | 166      | 34       | 194      | 47       | 177      | 47       | 169      | 42       | 173      | 49       |
| Missouri.....                | 189      | 43       | 215      | 43       | 223      | 38       | 217      | 46       | 219      | 53       |
| North Dakota.....            | 13       | 3        | 18       | 3        | 18       | 5        | 24       | 9        | 19       | 8        |
| South Dakota.....            | 35       | 12       | 39       | 12       | 32       | 16       | 34       | 13       | 37       | 13       |
| Nebraska.....                | 61       | 14       | 86       | 14       | 84       | 12       | 115      | 43       | 138      | 37       |
| Kansas.....                  | 119      | 21       | 137      | 31       | 149      | 25       | 156      | 33       | 149      | 40       |
| Western Division:            |          |          |          |          |          |          |          |          |          |          |
| Montana.....                 | 3        | 3        | 7        | 0        | 4        | 0        | 9        | 2        | 5        | 4        |
| Wyoming.....                 | 7        | 1        | 11       | 3        | 12       | 1        | 11       | 1        | 10       | 2        |
| Colorado.....                | 30       | 11       | 37       | 10       | 40       | 7        | 40       | 7        | 55       | 10       |
| New Mexico.....              |          |          |          |          |          |          | 3        | 1        | 0        | 0        |
| Arizona.....                 |          |          | 7        | 1        | 10       | 0        | 10       | 2        | 8        | 1        |
| Utah.....                    | 8        | 0        | 12       | 0        | 12       | 0        | 14       | 0        | 27       | 4        |
| Nevada.....                  | 7        | 1        | 11       | 1        | 11       | 0        | 11       | 0        | 16       | 0        |
| Idaho.....                   |          |          |          |          | 4        | 2        | 9        | 2        | 9        | 2        |
| Washington.....              | 10       | 9        | 16       | 10       | 17       | 14       | 32       | 18       | 53       | 20       |
| Oregon.....                  | 23       | 8        | 26       | 9        | 24       | 8        | 33       | 12       | 38       | 15       |
| California.....              | 129      | 24       | 159      | 29       | 203      | 23       | 272      | 27       | 288      | 32       |

TABLE 4.—*Professors and instructors in professional departments of universities and colleges from 1890-91 to 1894-95.*

| State or Territory.         | 1890-91. |              | 1891-92. |              | 1892-93. |              | 1893-94. |              | 1894-95. |              |
|-----------------------------|----------|--------------|----------|--------------|----------|--------------|----------|--------------|----------|--------------|
|                             | Male.    | Fe-<br>male. | Male.    | Fe-<br>male. | Male.    | Fe-<br>male. | Male.    | Fe-<br>male. | Male.    | Fe-<br>male. |
| United States.....          | 1,958    | 11           | 2,370    | 25           | 2,654    | 26           | 2,847    | 24           | 3,089    | 34           |
| North Atlantic Division.... | 706      | 2            | 797      | 2            | 937      | 1            | 985      | 2            | 1,039    | 6            |
| South Atlantic Division.... | 164      | 0            | 192      | 0            | 215      | 0            | 246      | 0            | 258      | 0            |
| South Central Division....  | 209      | 1            | 255      | 1            | 262      | 0            | 258      | 1            | 346      | 0            |
| North Central Division....  | 697      | 6            | 921      | 21           | 989      | 24           | 1,042    | 19           | 1,118    | 25           |
| Western Division.....       | 182      | 2            | 205      | 1            | 251      | 1            | 316      | 2            | 328      | 3            |
| North Atlantic Division:    |          |              |          |              |          |              |          |              |          |              |
| Maine.....                  | 16       | 0            | 15       | 0            | 13       | 0            | 16       | 0            | 19       | 0            |
| New Hampshire.....          | 17       | 0            | 17       | 0            | 16       | 0            | 16       | 0            | 14       | 0            |
| Vermont.....                | 20       | 0            | 22       | 0            | 22       | 0            | 20       | 0            | 22       | 0            |
| Massachusetts.....          | 202      | 2            | 211      | 2            | 241      | 1            | 276      | 1            | 279      | 6            |
| Rhode Island.....           | 0        | 0            | 0        | 0            | 0        | 0            | 0        | 0            | 0        | 0            |
| Connecticut.....            | 62       | 0            | 62       | 0            | 79       | 0            | 75       | 0            | 71       | 0            |
| New York.....               | 245      | 0            | 280      | 0            | 301      | 0            | 307      | 0            | 328      | 0            |
| New Jersey.....             | 4        | 0            | 5        | 0            | 5        | 0            | 3        | 0            | 3        | 0            |
| Pennsylvania.....           | 110      | 0            | 176      | 0            | 260      | 0            | 272      | 1            | 303      | 0            |
| South Atlantic Division:    |          |              |          |              |          |              |          |              |          |              |
| Delaware.....               | 0        | 0            | 0        | 0            | 0        | 0            | 0        | 0            | 0        | 0            |
| Maryland.....               | 3        | 0            | 4        | 0            | -----    | -----        | 31       | 0            | 20       | 0            |
| District of Columbia....    | 98       | 0            | 114      | 0            | 146      | 0            | 130      | 0            | 150      | 0            |
| Virginia.....               | 17       | 0            | 19       | 0            | 16       | 0            | 18       | 0            | 25       | 0            |
| West Virginia.....          | 3        | 0            | 2        | 0            | 2        | 0            | 2        | 0            | 3        | 0            |
| North Carolina.....         | 18       | 0            | 27       | 0            | 26       | 0            | 30       | 0            | 28       | 0            |
| South Carolina.....         | 7        | 0            | 8        | 0            | 6        | 0            | 10       | 0            | 4        | 0            |
| Georgia.....                | 18       | 0            | 18       | 0            | 19       | 0            | 23       | 0            | 28       | 0            |
| Florida.....                | 0        | 0            | 0        | 0            | 0        | 0            | 2        | 0            | 0        | 0            |
| South Central Division:     |          |              |          |              |          |              |          |              |          |              |
| Kentucky.....               | 24       | 0            | 26       | 0            | 21       | 0            | 28       | 0            | 41       | 0            |
| Tennessee.....              | 120      | 0            | 153      | 1            | 156      | 0            | 148      | 1            | 210      | 0            |
| Alabama.....                | 4        | 0            | 5        | 0            | 6        | 0            | 9        | 0            | 8        | 0            |
| Mississippi.....            | 7        | 0            | 5        | 0            | 5        | 0            | 1        | 0            | 1        | 0            |
| Louisiana.....              | 45       | 1            | 50       | 0            | 51       | 0            | 40       | 0            | 40       | 0            |
| Texas.....                  | 9        | 0            | 16       | 0            | 23       | 0            | 30       | 0            | 45       | 0            |
| Arkansas.....               | -----    | -----        | -----    | -----        | -----    | -----        | 0        | 0            | 1        | 0            |
| Oklahoma.....               | -----    | -----        | -----    | -----        | -----    | -----        | 0        | 0            | 0        | 0            |
| Indian Territory.....       | -----    | -----        | -----    | -----        | -----    | -----        | 2        | 0            | 0        | 0            |
| North Central Division:     |          |              |          |              |          |              |          |              |          |              |
| Ohio.....                   | 144      | 3            | 160      | 0            | 201      | 0            | 210      | 1            | 216      | 0            |
| Indiana.....                | 49       | 0            | 46       | 0            | 47       | 1            | 39       | 0            | 32       | 1            |
| Illinois.....               | 188      | 1            | 250      | 19           | 257      | 19           | 276      | 18           | 330      | 20           |
| Michigan.....               | 60       | 1            | 56       | 0            | 55       | 0            | 68       | 0            | 100      | 2            |
| Wisconsin.....              | 25       | 0            | 32       | 1            | 17       | 0            | 43       | 0            | 21       | 0            |
| Minnesota.....              | 92       | 0            | 91       | 0            | 105      | 2            | 82       | 0            | 89       | 0            |
| Iowa.....                   | 77       | 1            | 104      | 0            | 111      | 2            | 134      | 0            | 136      | 2            |
| Missouri.....               | 17       | 0            | 78       | 0            | 92       | 0            | 81       | 0            | 90       | 0            |
| North Dakota.....           | 1        | 0            | 5        | 0            | 3        | 0            | 0        | 0            | 0        | 0            |
| South Dakota.....           | 0        | 0            | 0        | 0            | 0        | 0            | 0        | 0            | 0        | 0            |
| Nebraska.....               | 39       | 0            | 78       | 0            | 83       | 0            | 81       | 0            | 76       | 0            |
| Kansas.....                 | 5        | 0            | 21       | 1            | 18       | 0            | 28       | 0            | 28       | 0            |
| Western Division:           |          |              |          |              |          |              |          |              |          |              |
| Montana.....                | 0        | 0            | 0        | 0            | 0        | 0            | 0        | 0            | 0        | 0            |
| Wyoming.....                | 0        | 0            | 0        | 0            | 0        | 0            | 0        | 0            | 0        | 0            |
| Colorado.....               | 33       | 0            | 73       | 0            | 98       | 0            | 95       | 0            | 100      | 0            |
| New Mexico.....             | -----    | -----        | -----    | -----        | -----    | -----        | 0        | 0            | 0        | 0            |
| Arizona.....                | -----    | -----        | 0        | 0            | 0        | 0            | 0        | 0            | 0        | 0            |
| Utah.....                   | 0        | 0            | 1        | 0            | -----    | -----        | 0        | 0            | 0        | 0            |
| Nevada.....                 | 0        | 0            | 0        | 0            | 0        | 0            | 0        | 0            | 0        | 0            |
| Idaho.....                  | -----    | -----        | -----    | -----        | -----    | -----        | 0        | 0            | 0        | 0            |
| Washington.....             | 1        | 0            | 1        | 0            | 1        | 0            | 0        | 0            | 0        | 0            |
| Oregon.....                 | 49       | 0            | 57       | 0            | 65       | 0            | 67       | 0            | 54       | 0            |
| California.....             | 99       | 2            | 73       | 1            | 87       | 1            | 154      | 2            | 174      | 3            |

TABLE 5.—*Professors and instructors in all departments of universities and colleges from 1890-91 to 1894-95.*

| State or Territory.         | 1890-91. |              | 1891-92. |              | 1892-93. |              | 1893-94. |              | 1894-95. |              |
|-----------------------------|----------|--------------|----------|--------------|----------|--------------|----------|--------------|----------|--------------|
|                             | Male.    | Fe-<br>male. | Male.    | Fe-<br>male. | Male.    | Fe-<br>male. | Male.    | Fe-<br>male. | Male.    | Fe-<br>male. |
| United States.....          | 7, 350   | 1, 122       | 8, 056   | 1, 270       | 8, 883   | 1, 364       | 9, 388   | 1, 509       | 10, 040  | 1, 542       |
| North Atlantic Division.... | 2, 348   | 63           | 2, 483   | 76           | 2, 773   | 74           | 2, 931   | 82           | 3, 124   | 91           |
| South Atlantic Division.... | 756      | 100          | 858      | 131          | 958      | 145          | 959      | 135          | 1, 019   | 145          |
| South Central Division....  | 834      | 219          | 877      | 229          | 903      | 235          | 950      | 254          | 1, 054   | 272          |
| North Central Division....  | 2, 919   | 622          | 3, 272   | 720          | 3, 590   | 790          | 3, 736   | 873          | 3, 929   | 861          |
| Western Division.....       | 493      | 118          | 566      | 114          | 659      | 120          | 812      | 165          | 914      | 173          |
| North Atlantic Division:    |          |              |          |              |          |              |          |              |          |              |
| Maine.....                  | 52       | 0            | 55       | 0            | 50       | 0            | 56       | 0            | 58       | 0            |
| New Hampshire.....          | 48       | 0            | 42       | 0            | 50       | 0            | 48       | 0            | 45       | 0            |
| Vermont.....                | 50       | 0            | 55       | 0            | 55       | 0            | 55       | 0            | 57       | 0            |
| Massachusetts.....          | 543      | 5            | 486      | 5            | 549      | 4            | 609      | 5            | 647      | 9            |
| Rhode Island.....           | 35       | 0            | 47       | 0            | 58       | 0            | 64       | 0            | 83       | 0            |
| Connecticut.....            | 193      | 0            | 195      | 0            | 232      | 0            | 245      | 0            | 257      | 0            |
| New York.....               | 814      | 17           | 917      | 24           | 945      | 21           | 993      | 20           | 1, 050   | 20           |
| New Jersey.....             | 114      | 0            | 113      | 0            | 136      | 4            | 131      | 4            | 127      | 4            |
| Pennsylvania.....           | 499      | 41           | 573      | 47           | 698      | 45           | 730      | 53           | 800      | 58           |
| South Atlantic Division:    |          |              |          |              |          |              |          |              |          |              |
| Delaware.....               | 8        | 0            | 12       | 0            | 13       | 0            | 13       | 0            | 12       | 0            |
| Maryland.....               | 153      | 18           | 171      | 20           | 181      | 20           | 197      | 20           | 194      | 16           |
| District of Columbia....    | 163      | 7            | 228      | 12           | 284      | 10           | 235      | 9            | 287      | 9            |
| Virginia.....               | 114      | 2            | 128      | 5            | 128      | 9            | 141      | 11           | 158      | 12           |
| West Virginia.....          | 32       | 2            | 34       | 2            | 33       | 5            | 31       | 4            | 34       | 3            |
| North Carolina.....         | 108      | 18           | 119      | 20           | 135      | 29           | 138      | 27           | 129      | 25           |
| South Carolina.....         | 85       | 6            | 68       | 13           | 87       | 20           | 75       | 14           | 73       | 13           |
| Georgia.....                | 74       | 30           | 81       | 35           | 80       | 26           | 101      | 25           | 103      | 40           |
| Florida.....                | 19       | 17           | 17       | 24           | 17       | 26           | 28       | 25           | 29       | 27           |
| South Central Division:     |          |              |          |              |          |              |          |              |          |              |
| Kentucky.....               | 122      | 23           | 124      | 20           | 128      | 29           | 145      | 35           | 153      | 33           |
| Tennessee.....              | 306      | 62           | 339      | 69           | 354      | 70           | 337      | 81           | 412      | 87           |
| Alabama.....                | 75       | 14           | 73       | 17           | 59       | 10           | 84       | 12           | 83       | 12           |
| Mississippi.....            | 41       | 11           | 47       | 12           | 48       | 10           | 40       | 8            | 38       | 7            |
| Louisiana.....              | 160      | 45           | 156      | 48           | 160      | 53           | 147      | 35           | 143      | 37           |
| Texas.....                  | 104      | 46           | 111      | 42           | 120      | 45           | 144      | 52           | 174      | 58           |
| Arkansas.....               | 26       | 18           | 27       | 21           | 29       | 17           | 45       | 26           | 41       | 29           |
| Oklahoma.....               |          |              |          |              | 5        | 1            | 5        | 1            | 5        | 0            |
| Indian Territory.....       |          |              |          |              |          |              | 3        | 4            | 5        | 9            |
| North Central Division:     |          |              |          |              |          |              |          |              |          |              |
| Ohio.....                   | 586      | 131          | 630      | 126          | 722      | 134          | 747      | 158          | 743      | 151          |
| Indiana.....                | 276      | 42           | 272      | 43           | 289      | 45           | 282      | 46           | 294      | 45           |
| Illinois.....               | 527      | 112          | 609      | 115          | 691      | 118          | 802      | 156          | 896      | 164          |
| Michigan.....               | 234      | 47           | 228      | 57           | 239      | 73           | 241      | 59           | 293      | 60           |
| Wisconsin.....              | 143      | 17           | 163      | 21           | 168      | 24           | 184      | 21           | 198      | 23           |
| Minnesota.....              | 228      | 22           | 224      | 21           | 249      | 29           | 235      | 37           | 258      | 38           |
| Iowa.....                   | 298      | 89           | 331      | 114          | 334      | 112          | 314      | 99           | 327      | 102          |
| Missouri.....               | 278      | 64           | 377      | 104          | 421      | 113          | 404      | 124          | 378      | 116          |
| North Dakota.....           | 18       | 3            | 28       | 14           | 31       | 13           | 26       | 11           | 21       | 10           |
| South Dakota.....           | 42       | 23           | 38       | 22           | 43       | 42           | 42       | 28           | 46       | 22           |
| Nebraska.....               | 122      | 21           | 174      | 27           | 190      | 29           | 228      | 68           | 246      | 61           |
| Kansas.....                 | 167      | 51           | 198      | 56           | 213      | 58           | 231      | 66           | 229      | 69           |
| Western Division:           |          |              |          |              |          |              |          |              |          |              |
| Montana.....                | 10       | 5            | 7        | 1            | 7        | 1            | 11       | 5            | 5        | 4            |
| Wyoming.....                | 13       | 2            | 11       | 3            | 12       | 2            | 12       | 2            | 10       | 2            |
| Colorado.....               | 96       | 23           | 112      | 18           | 137      | 15           | 134      | 9            | 172      | 14           |
| New Mexico.....             |          |              |          |              | 3        | 4            | 3        | 4            | 4        | 4            |
| Arizona.....                |          |              | 8        | 1            | 10       | 0            | 10       | 2            | 8        | 1            |
| Utah.....                   | 18       | 2            | 16       | 0            | 16       | 1            | 16       | 2            | 27       | 4            |
| Nevada.....                 | 8        | 2            | 12       | 2            | 15       | 2            | 14       | 3            | 16       | 3            |
| Idaho.....                  |          |              |          |              | 4        | 2            | 10       | 3            | 11       | 3            |
| Washington.....             | 19       | 13           | 25       | 18           | 23       | 17           | 40       | 27           | 57       | 29           |
| Oregon.....                 | 70       | 16           | 87       | 19           | 99       | 24           | 119      | 39           | 114      | 42           |
| California.....             | 259      | 55           | 288      | 52           | 333      | 52           | 443      | 69           | 490      | 67           |

TABLE 6.—*Students in preparatory departments of universities and colleges from 1890-91 to 1894-95.*

| State or Territory.      | 1890-91.                     |              | 1891-92. |              | 1892-93.                    |              | 1893-94. |              | 1894-95. |              |
|--------------------------|------------------------------|--------------|----------|--------------|-----------------------------|--------------|----------|--------------|----------|--------------|
|                          | Male.                        | Fe-<br>male. | Male.    | Fe-<br>male. | Male.                       | Fe-<br>male. | Male.    | Fe-<br>male. | Male.    | Fe-<br>male. |
| United States.....       | { <sup>(893)</sup><br>27,255 | 10,937       | {29,798  | 12,572       | { <sup>(73)</sup><br>30,590 | 13,391       | {30,813  | 14,375       | 31,485   | 14,613       |
| North Atlantic Division. | 4,177                        | 306          | 4,516    | 425          | 4,872                       | 619          | 5,173    | 686          | 5,492    | 653          |
| South Atlantic Division. | { <sup>(84)</sup><br>2,579   | 585          | {3,081   | 1,082        | {3,307                      | 1,329        | {3,643   | 1,583        | {3,652   | 1,450        |
| South Central Division.. | { <sup>(40)</sup><br>4,713   | 2,306        | {4,737   | 2,209        | { <sup>(56)</sup><br>4,762  | 2,308        | {4,921   | 2,854        | {5,085   | 2,952        |
| North Central Division.. | { <sup>(769)</sup><br>13,897 | 6,681        | {15,380  | 7,848        | {15,735                     | 8,065        | {14,834  | 7,889        | {14,728  | 8,107        |
| Western Division .....   | 1,889                        | 1,059        | 2,084    | 1,008        | { <sup>(17)</sup><br>1,914  | 1,070        | {2,242   | 1,363        | {2,528   | 1,451        |
| North Atlantic Division: |                              |              |          |              |                             |              |          |              |          |              |
| Maine.....               | 0                            | 0            | 0        | 0            | 0                           | 0            | 0        | 0            | 0        | 0            |
| New Hampshire.....       | 0                            | 0            | 0        | 0            | 0                           | 0            | 0        | 0            | 0        | 0            |
| Vermont.....             | 0                            | 0            | 0        | 0            | 0                           | 0            | 0        | 0            | 0        | 0            |
| Massachusetts.....       | 392                          | 0            | 294      | 0            | 433                         | 6            | 432      | 22           | 368      | 16           |
| Rhode Island.....        | 0                            | 0            | 0        | 0            | 0                           | 0            | 0        | 0            | 0        | 0            |
| Connecticut.....         | 0                            | 0            | 0        | 0            | 0                           | 0            | 0        | 0            | 0        | 0            |
| New York.....            | 2,377                        | 157          | 2,781    | 130          | 2,780                       | 242          | 3,184    | 118          | 3,214    | 48           |
| New Jersey.....          | 72                           | 0            | 59       | 0            | 230                         | 22           | 219      | 25           | 208      | 29           |
| Pennsylvania.....        | 1,336                        | 149          | 1,382    | 295          | 1,429                       | 349          | 1,338    | 521          | 1,702    | 560          |
| South Atlantic Division: |                              |              |          |              |                             |              |          |              |          |              |
| Delaware.....            | 0                            | 0            | 0        | 0            | 0                           | 0            | 0        | 0            | 0        | 0            |
| Maryland.....            | 476                          | 56           | 612      | 90           | 728                         | 176          | 702      | 140          | 633      | 76           |
| District of Columbia.    | 301                          | 2            | 350      | 6            | 320                         | 12           | 338      | 14           | 406      | 13           |
| Virginia.....            | 195                          | 0            | 249      | 20           | 279                         | 22           | 335      | 65           | 404      | 70           |
| West Virginia.....       | 140                          | 6            | 166      | 8            | 219                         | 69           | 88       | 13           | 140      | 17           |
| North Carolina.....      | 635                          | 230          | 715      | 376          | 554                         | 346          | 757      | 369          | 551      | 271          |
| South Carolina.....      | 398                          | 55           | 554      | 241          | 558                         | 270          | 415      | 219          | 539      | 259          |
| Georgia.....             | { <sup>(84)</sup><br>202     | 5            | {258     | 124          | {447                        | 230          | {779     | 541          | {705     | 501          |
| Florida.....             | 232                          | 231          | 197      | 217          | 202                         | 204          | 229      | 222          | 274      | 243          |
| South Central Division:  |                              |              |          |              |                             |              |          |              |          |              |
| Kentucky.....            | 697                          | 207          | 582      | 72           | 725                         | 301          | 643      | 412          | 751      | 374          |
| Tennessee.....           | { <sup>(40)</sup><br>1,521   | 653          | {1,642   | 930          | {1,641                      | 878          | {1,556   | 867          | {1,502   | 774          |
| Alabama.....             | 384                          | 425          | 341      | 324          | 278                         | 225          | 319      | 223          | 323      | 209          |
| Mississippi.....         | 303                          | 74           | 270      | 74           | 296                         | 49           | 186      | 27           | 281      | 141          |
| Louisiana.....           | 619                          | 128          | 760      | 118          | 645                         | 124          | 700      | 367          | 608      | 331          |
| Texas.....               | 923                          | 672          | 845      | 558          | 876                         | 552          | 1,094    | 627          | 1,048    | 562          |
| Arkansas.....            | 266                          | 147          | 297      | 133          | { <sup>(56)</sup><br>240    | 119          | {331     | 253          | {414     | 398          |
| Oklahoma.....            |                              |              |          |              | 61                          | 60           | 69       | 55           | 92       | 84           |
| Indian Territory.....    |                              |              |          |              |                             |              | 23       | 23           | 66       | 79           |
| North Central Division:  |                              |              |          |              |                             |              |          |              |          |              |
| Ohio.....                | { <sup>(139)</sup><br>2,959  | 1,291        | {3,358   | 1,523        | {3,275                      | 1,424        | {2,928   | 1,467        | {3,035   | 1,523        |
| Indiana.....             | { <sup>(164)</sup><br>1,138  | 332          | {1,078   | 351          | {1,030                      | 310          | {1,013   | 278          | {967     | 338          |
| Illinois.....            | { <sup>(26)</sup><br>2,654   | 1,174        | {2,753   | 1,254        | {2,668                      | 1,150        | {2,433   | 1,108        | {2,792   | 1,381        |
| Michigan.....            | 818                          | 421          | 943      | 502          | 967                         | 487          | 1,085    | 617          | 978      | 578          |
| Wisconsin.....           | 531                          | 146          | 609      | 169          | 567                         | 198          | 655      | 174          | 736      | 185          |
| Minnesota.....           | 594                          | 262          | 606      | 280          | 668                         | 243          | 512      | 264          | 463      | 259          |
| Iowa.....                | 1,567                        | 1,229        | 1,635    | 1,209        | 1,586                       | 1,308        | 1,339    | 992          | 1,217    | 1,011        |
| Missouri.....            | 1,766                        | 740          | 2,389    | 1,201        | 2,528                       | 1,342        | 2,146    | 1,143        | 2,095    | 1,096        |
| North Dakota.....        | 107                          | 86           | 141      | 94           | 200                         | 198          | 173      | 182          | 192      | 180          |
| South Dakota.....        | { <sup>(152)</sup><br>219    | 188          | {290     | 247          | {289                        | 284          | {367     | 403          | {305     | 300          |
| Nebraska.....            | 588                          | 269          | 438      | 376          | 770                         | 477          | 1,007    | 626          | 892      | 647          |
| Kansas.....              | { <sup>(288)</sup><br>956    | 543          | {1,140   | 642          | {1,187                      | 644          | {1,176   | 635          | {1,056   | 609          |
| Western Division:        |                              |              |          |              |                             |              |          |              |          |              |
| Montana.....             | 28                           | 43           | 49       | 25           | 30                          | 31           | 26       | 15           | 14       | 12           |
| Wyoming.....             | 21                           | 18           | 39       | 22           | 16                          | 20           | 27       | 24           | 36       | 37           |
| Colorado.....            | 179                          | 143          | 284      | 159          | { <sup>(17)</sup><br>163    | 140          | {134     | 132          | {329     | 217          |
| New Mexico.....          |                              |              |          |              | 7                           | 10           | 62       | 80           | 41       | 52           |
| Arizona.....             |                              |              | 12       | 10           | 9                           | 4            | 21       | 10           | 10       | 17           |
| Utah.....                | 47                           | 48           | 54       | 43           | 116                         | 135          | 39       | 7            | 327      | 263          |
| Nevada.....              | 46                           | 69           | 41       | 68           | 45                          | 77           | 58       | 60           |          |              |
| Idaho.....               |                              |              |          |              | 84                          | 45           | 133      | 83           | 117      | 74           |
| Washington.....          | 253                          | 128          | 206      | 115          | 164                         | 85           | 235      | 175          | 196      | 83           |
| Oregon.....              | 261                          | 211          | 289      | 244          | 297                         | 236          | 416      | 365          | 438      | 360          |
| California.....          | 1,054                        | 399          | 1,110    | 322          | 983                         | 287          | 1,091    | 412          | 1,020    | 336          |



TABLE 7.—*Students in collegiate departments of universities and colleges from 1890-91 to 1894-95.*

| State or Territory.         | 1890-91.          |              | 1891-92.          |              | 1892-93.         |              | 1893-94. |              | 1894-95. |              |
|-----------------------------|-------------------|--------------|-------------------|--------------|------------------|--------------|----------|--------------|----------|--------------|
|                             | Male.             | Fe-<br>male. | Male.             | Fe-<br>male. | Male.            | Fe-<br>male. | Male.    | Fe-<br>male. | Male.    | Fe-<br>male. |
| United States .....         | (110)<br>{ 28,175 | 9,230        | (102)<br>{ 42,399 | 10,021       | (88)<br>{ 44,266 | 11,089       | { 47,585 | 12,505       | { 49,725 | 13,677       |
| North Atlantic Division ... | { 13,061          | 1,057        | { 15,746          | 1,352        | { 16,404         | 1,588        | { 17,317 | 1,628        | { 17,949 | 1,570        |
| South Atlantic Division ... | (75)<br>{ 4,531   | 387          | (75)<br>{ 4,818   | 488          | { 4,785          | 541          | { 5,087  | 711          | { 5,477  | 791          |
| South Central Division ...  | { 6,012           | 1,705        | { 5,592           | 1,503        | (75)<br>{ 5,313  | 1,145        | { 6,157  | 1,884        | { 6,403  | 2,185        |
| North Central Division ...  | (35)<br>{ 13,194  | 5,620        | (27)<br>{ 14,569  | 6,009        | { 15,659         | 6,895        | { 16,456 | 7,133        | { 16,795 | 7,605        |
| Western Division .....      | { 1,377           | 481          | { 1,674           | 669          | (13)<br>{ 2,205  | 930          | { 2,568  | 1,149        | { 3,101  | 1,526        |
| North Atlantic Division:    |                   |              |                   |              |                  |              |          |              |          |              |
| Maine .....                 | 438               | 72           | 427               | 80           | 453              | 115          | 458      | 146          | 499      | 141          |
| New Hampshire .....         | 256               | 0            | 334               | 0            | 349              | 0            | 355      | 0            | 344      | 0            |
| Vermont .....               | 195               | 44           | 225               | 58           | 244              | 65           | 236      | 81           | 254      | 79           |
| Massachusetts .....         | 2,515             | 265          | 2,914             | 214          | 3,085            | 207          | 3,393    | 212          | 3,383    | 263          |
| Rhode Island .....          | 326               | 0            | 348               | 0            | 422              | 39           | 490      | 73           | 534      | 100          |
| Connecticut .....           | 1,184             | 20           | 1,674             | 26           | 1,784            | 36           | 2,019    | 47           | 2,155    | 54           |
| New York .....              | 4,128             | 336          | 4,611             | 393          | 4,455            | 569          | 4,785    | 604          | 4,860    | 333          |
| New Jersey .....            | 1,101             | 0            | 1,281             | 0            | 1,371            | 0            | 1,394    | 0            | 1,318    | 0            |
| Pennsylvania .....          | 2,913             | 380          | 3,932             | 576          | 4,241            | 557          | 4,187    | 462          | 4,602    | 551          |
| South Atlantic Division:    |                   |              |                   |              |                  |              |          |              |          |              |
| Delaware .....              | 81                | 0            | 95                | 0            | 90               | 0            | 80       | 0            | 78       | 0            |
| Maryland .....              | 770               | 119          | 793               | 117          | 780              | 97           | 743      | 96           | 782      | 135          |
| District of Columbia ...    | 194               | 34           | 329               | 61           | 353              | 63           | 332      | 167          | 501      | 107          |
| Virginia .....              | 1,079             | 0            | 1,176             | 12           | 1,165            | 18           | 1,076    | 143          | 1,181    | 145          |
| West Virginia .....         | 266               | 57           | 195               | 37           | 172              | 79           | 273      | 115          | 205      | 63           |
| North Carolina .....        | 931               | 88           | 933               | 106          | 1,045            | 111          | 1,144    | 87           | 1,184    | 111          |
| South Carolina .....        | 611               | 15           | 546               | 16           | 493              | 14           | 574      | 26           | 629      | 35           |
| Georgia .....               | (75)<br>{ 619     | 32           | (75)<br>{ 655     | 57           | { 679            | 75           | { 730    | 76           | { 820    | 160          |
| Florida .....               | 40                | 42           | 96                | 82           | 68               | 84           | 75       | 61           | 97       | 65           |
| South Central Division:     |                   |              |                   |              |                  |              |          |              |          |              |
| Kentucky .....              | 1,046             | 198          | 1,208             | 194          | 1,244            | 219          | 1,204    | 270          | 1,260    | 406          |
| Tennessee .....             | 1,905             | 431          | 1,865             | 361          | 1,628            | 273          | 1,725    | 374          | 1,714    | 593          |
| Alabama .....               | 778               | 109          | 825               | 138          | 611              | 68           | 846      | 201          | 816      | 131          |
| Mississippi .....           | 309               | 107          | 282               | 104          | 332              | 62           | 469      | 68           | 475      | 74           |
| Louisiana .....             | 756               | 172          | 380               | 167          | 604              | 109          | 669      | 190          | 627      | 298          |
| Texas .....                 | 1,067             | 581          | 843               | 424          | 742              | 315          | 913      | 483          | 1,142    | 534          |
| Arkansas .....              | 151               | 107          | 189               | 115          | (75)<br>{ 152    | 99           | { 326    | 286          | { 319    | 233          |
| Oklahoma .....              |                   |              |                   |              |                  |              | 1        | 0            | 9        | 1            |
| Indian Territory .....      |                   |              |                   |              |                  |              | 13       | 7            | 11       | 5            |
| North Central Division:     |                   |              |                   |              |                  |              |          |              |          |              |
| Ohio .....                  | 2,798             | 1,231        | 2,863             | 1,185        | 2,979            | 1,278        | 3,145    | 1,308        | 3,243    | 1,360        |
| Indiana .....               | (6)<br>{ 1,432    | 450          | (6)<br>{ 1,539    | 516          | { 1,714          | 562          | { 1,636  | 584          | { 1,514  | 590          |
| Illinois .....              | 1,952             | 749          | 2,008             | 740          | 2,417            | 1,022        | 2,609    | 1,118        | 3,677    | 1,327        |
| Michigan .....              | 1,402             | 746          | 1,510             | 810          | 1,573            | 859          | 1,535    | 783          | 1,610    | 866          |
| Wisconsin .....             | 1,108             | 264          | 1,334             | 290          | 1,383            | 326          | 1,234    | 292          | 1,346    | 387          |
| Minnesota .....             | 786               | 339          | 1,089             | 396          | 1,119            | 542          | 1,413    | 547          | 1,321    | 591          |
| Iowa .....                  | 1,285             | 715          | 1,362             | 783          | 1,361            | 806          | 1,330    | 728          | 1,331    | 786          |
| Missouri .....              | 1,333             | 674          | 1,414             | 639          | 1,589            | 687          | 1,764    | 801          | 1,538    | 692          |
| North Dakota .....          | 22                | 16           | 32                | 23           | 41               | 19           | 43       | 20           | 41       | 23           |
| South Dakota .....          | (11)<br>{ 77      | 45           | { 75              | 42           | { 109            | 94           | { 124    | 56           | { 122    | 57           |
| Nebraska .....              | 305               | 152          | 498               | 270          | 527              | 349          | 757      | 496          | 727      | 491          |
| Kansas .....                | (13)<br>{ 694     | 230          | (21)<br>{ 840     | 315          | { 847            | 351          | { 866    | 400          | { 835    | 432          |
| Western Division:           |                   |              |                   |              |                  |              |          |              |          |              |
| Montana .....               | 5                 | 8            | 19                | 6            | 19               | 4            | 22       | 3            | 7        | 8            |
| Wyoming .....               | 5                 | 8            | 5                 | 9            | 18               | 9            | 21       | 15           | 23       | 10           |
| Colorado .....              | 82                | 50           | 94                | 51           | (13)<br>{ 113    | 87           | { 144    | 85           | { 174    | 136          |
| New Mexico .....            |                   |              |                   |              |                  |              | 2        | 0            | 0        | 0            |
| Arizona .....               |                   |              | 5                 | 4            | 17               | 8            | 19       | 8            | 14       | 12           |
| Utah .....                  | 13                | 4            | 21                | 16           | 66               | 46           | 47       | 35           | 82       | 73           |
| Nevada .....                | 31                | 17           | 26                | 19           | 34               | 28           | 35       | 37           | 50       | 24           |
| Idaho .....                 |                   |              |                   |              | 4                | 2            | 12       | 4            | 20       | 9            |
| Washington .....            | 42                | 31           | 71                | 44           | 142              | 62           | 206      | 143          | 233      | 228          |
| Oregon .....                | 227               | 149          | 177               | 131          | 154              | 129          | 186      | 142          | 191      | 128          |
| California .....            | 972               | 214          | 1,256             | 389          | 1,638            | 555          | 1,874    | 677          | 2,307    | 888          |

TABLE 8.—Students in graduate departments of universities and colleges from 1890-91 to 1894-95.

| State or Territory.         | 1890-91. |              | 1891-92. |              | 1892-93. |              | 1893-94. |              | 1894-95. |              |
|-----------------------------|----------|--------------|----------|--------------|----------|--------------|----------|--------------|----------|--------------|
|                             | Male.    | Fe-<br>male. | Male.    | Fe-<br>male. | Male.    | Fe-<br>male. | Male.    | Fe-<br>male. | Male.    | Fe-<br>male. |
| United States.....          | 2,163    | 245          | 2,425    | 364          | 3,081    | 484          | 3,456    | 563          | 3,555    | 718          |
| North Atlantic Division.... | 1,124    | 63           | 1,172    | 95           | 1,514    | 152          | 1,708    | 185          | 1,685    | 194          |
| South Atlantic Division.... | 319      | 0            | 369      | 7            | 395      | 1            | 423      | 11           | 359      | 6            |
| South Central Division....  | 91       | 7            | 130      | 14           | 140      | 13           | 127      | 10           | 138      | 26           |
| North Central Division....  | 599      | 169          | 700      | 211          | 921      | 283          | 1,075    | 395          | 1,214    | 413          |
| Western Division.....       | 30       | 6            | 54       | 37           | 111      | 35           | 123      | 52           | 159      | 79           |
| North Atlantic Division:    |          |              |          |              |          |              |          |              |          |              |
| Maine.....                  | 0        | 0            | 0        | 0            | 0        | 0            | 0        | 0            | 0        | 0            |
| New Hampshire.....          | 0        | 0            | 0        | 0            | 1        | 0            | 6        | 0            | 5        | 0            |
| Vermont.....                | 0        | 0            | 0        | 0            | 0        | 0            | 0        | 0            | 1        | 0            |
| Massachusetts.....          | 277      | 25           | 281      | 34           | 360      | 39           | 490      | 40           | 392      | 34           |
| Rhode Island.....           | 26       | 0            | 55       | 0            | 79       | 9            | 93       | 8            | 99       | 9            |
| Connecticut.....            | 115      | 3            | 87       | 0            | 133      | 27           | 124      | 34           | 125      | 29           |
| New York.....               | 440      | 27           | 418      | 45           | 581      | 55           | 778      | 70           | 636      | 82           |
| New Jersey.....             | 103      | 0            | 104      | 0            | 118      | 0            | 100      | 0            | 131      | 0            |
| Pennsylvania.....           | 163      | 8            | 227      | 16           | 242      | 22           | 207      | 33           | 296      | 40           |
| South Atlantic Division:    |          |              |          |              |          |              |          |              |          |              |
| Delaware.....               | 0        | 0            | 2        | 0            | 0        | 0            | 0        | 0            | 0        | 0            |
| Maryland.....               | 276      | 0            | 340      | 6            | 347      | 0            | 344      | 0            | 284      | 0            |
| District of Columbia....    | 0        | 0            | 11       | 1            | 4        | 1            | 22       | 7            | 41       | 5            |
| Virginia.....               | 6        | 0            | 1        | 0            | 7        | 0            | 8        | 0            | 13       | 0            |
| West Virginia.....          | 2        | 0            | 2        | 0            | 2        | 0            | 0        | 0            | 0        | 0            |
| North Carolina.....         | 17       | 0            | 5        | 0            | 27       | 0            | 34       | 4            | 10       | 1            |
| South Carolina.....         | 13       | 0            | 8        | 0            | 6        | 0            | 6        | 0            | 5        | 0            |
| Georgia.....                | 5        | 0            | 0        | 0            | 2        | 0            | 9        | 0            | 6        | 0            |
| Florida.....                | 0        | 0            | 0        | 0            | 0        | 0            | 0        | 0            | 0        | 0            |
| South Central Division:     |          |              |          |              |          |              |          |              |          |              |
| Kentucky.....               | 5        | 0            | 2        | 0            | 5        | 0            | 6        | 0            | 6        | 1            |
| Tennessee.....              | 48       | 1            | 82       | 0            | 61       | 3            | 49       | 0            | 58       | 10           |
| Alabama.....                | 4        | 0            | 5        | 0            | 6        | 0            | 15       | 0            | 4        | 0            |
| Mississippi.....            | 16       | 4            | 18       | 6            | 28       | 6            | 18       | 6            | 23       | 4            |
| Louisiana.....              | 15       | 1            | 15       | 8            | 30       | 4            | 21       | 2            | 27       | 7            |
| Texas.....                  | 3        | 1            | 8        | 0            | 10       | 0            | 17       | 1            | 19       | 1            |
| Arkansas.....               | 0        | 0            | 0        | 0            | 0        | 0            | 1        | 1            | 1        | 3            |
| Oklahoma.....               |          |              |          |              | 0        | 0            | 0        | 0            | 0        | 0            |
| Indian Territory.....       |          |              |          |              |          |              | 0        | 0            | 0        | 0            |
| North Central Division:     |          |              |          |              |          |              |          |              |          |              |
| Ohio.....                   | 230      | 28           | 235      | 22           | 292      | 33           | 311      | 49           | 265      | 53           |
| Indiana.....                | 46       | 10           | 82       | 37           | 50       | 23           | 75       | 23           | 102      | 30           |
| Illinois.....               | 63       | 12           | 107      | 19           | 244      | 85           | 300      | 102          | 455      | 188          |
| Michigan.....               | 73       | 29           | 84       | 38           | 81       | 41           | 99       | 34           | 86       | 19           |
| Wisconsin.....              | 39       | 26           | 23       | 4            | 77       | 23           | 85       | 25           | 74       | 18           |
| Minnesota.....              | 30       | 21           | 52       | 17           | 72       | 28           | 77       | 13           | 63       | 31           |
| Iowa.....                   | 42       | 20           | 32       | 46           | 28       | 26           | 42       | 28           | 64       | 35           |
| Missouri.....               | 43       | 3            | 45       | 12           | 55       | 8            | 23       | 8            | 23       | 5            |
| North Dakota.....           | 0        | 0            | 4        | 0            | 0        | 0            | 0        | 0            | 3        | 2            |
| South Dakota.....           | 0        | 0            | 0        | 0            | 0        | 2            | 0        | 0            | 5        | 3            |
| Nebraska.....               | 24       | 8            | 16       | 5            | 4        | 1            | 31       | 10           | 52       | 22           |
| Kansas.....                 | 13       | 12           | 20       | 11           | 18       | 13           | 32       | 8            | 42       | 7            |
| Western Division:           |          |              |          |              |          |              |          |              |          |              |
| Montana.....                | 0        | 0            | 1        | 0            | 0        | 0            | 0        | 0            | 0        | 0            |
| Wyoming.....                | 0        | 0            | 0        | 0            | 1        | 0            | 0        | 0            | 0        | 0            |
| Colorado.....               | 3        | 1            | 4        | 2            | 9        | 2            | 13       | 1            | 23       | 4            |
| New Mexico.....             |          |              |          |              | 0        | 0            | 0        | 0            | 0        | 0            |
| Arizona.....                |          |              | 0        | 0            | 0        | 0            | 0        | 0            | 0        | 0            |
| Utah.....                   | 0        | 0            | 2        | 0            | 5        | 0            | 1        | 0            | 3        | 0            |
| Nevada.....                 | 0        | 0            | 1        | 0            | 2        | 0            | 2        | 0            | 0        | 0            |
| Idaho.....                  |          |              |          |              | 0        | 0            | 0        | 0            | 0        | 0            |
| Washington.....             | 0        | 0            | 0        | 0            | 2        | 1            | 2        | 4            | 5        | 6            |
| Oregon.....                 | 0        | 0            | 0        | 0            | 0        | 0            | 1        | 0            | 11       | 1            |
| California.....             | 27       | 5            | 46       | 35           | 92       | 32           | 104      | 47           | 117      | 68           |

TABLE 9.—*Students in professional departments of universities and colleges from 1890-91 to 1894-95.*

| State or Territory.             | 1890-91. |              | 1891-92. |              | 1892-93. |              | 1893-94. |              | 1894-95. |              |
|---------------------------------|----------|--------------|----------|--------------|----------|--------------|----------|--------------|----------|--------------|
|                                 | Male.    | Fe-<br>male. | Male.    | Fe-<br>male. | Male.    | Fe-<br>male. | Male.    | Fe-<br>male. | Male.    | Fe-<br>male. |
| United States.....              | 17, 074  | 376          | 18, 796  | 530          | 18, 609  | 726          | 20, 678  | 587          | 22, 748  | 819          |
| North Atlantic Division....     | 5, 478   | 70           | 5, 674   | 81           | 6, 136   | 188          | 6, 326   | 108          | 6, 896   | 186          |
| South Atlantic Division....     | 1, 946   | 26           | 2, 010   | 13           | 1, 988   | 21           | 2, 149   | 20           | 2, 232   | 40           |
| South Central Division....      | 2, 098   | 9            | 2, 446   | 2            | 2, 506   | 10           | 2, 425   | 21           | 3, 029   | 44           |
| North Central Division....      | 7, 012   | 245          | 8, 010   | 390          | 7, 208   | 455          | 8, 926   | 375          | 9, 456   | 416          |
| Western Division.....           | 540      | 26           | 656      | 44           | 771      | 52           | 852      | 63           | 1, 135   | 133          |
| <b>North Atlantic Division:</b> |          |              |          |              |          |              |          |              |          |              |
| Maine.....                      | 102      | 0            | 117      | 0            | 100      | 0            | 111      | 0            | 134      | 2            |
| New Hampshire.....              | 98       | 0            | 92       | 0            | 108      | 0            | 132      | 0            | 149      | 0            |
| Vermont.....                    | 203      | 0            | 209      | 0            | 190      | 0            | 163      | 0            | 191      | 0            |
| Massachusetts.....              | 1, 120   | 59           | 1, 367   | 62           | 1, 463   | 75           | 1, 534   | 83           | 1, 752   | 94           |
| Rhode Island.....               | 0        | 0            | 0        | 0            | 0        | 0            | 0        | 0            | 0        | 0            |
| Connecticut.....                | 318      | 0            | 351      | 0            | 356      | 0            | 387      | 0            | 411      | 0            |
| New York.....                   | 2, 354   | 11           | 2, 164   | 19           | 2, 153   | 108          | 2, 094   | 25           | 2, 201   | 89           |
| New Jersey.....                 | 37       | 0            | 40       | 0            | 38       | 0            | 32       | 0            | 27       | 0            |
| Pennsylvania.....               | 1, 246   | 0            | 1, 334   | 0            | 1, 728   | 5            | 1, 873   | 0            | 2, 031   | 1            |
| <b>South Atlantic Division:</b> |          |              |          |              |          |              |          |              |          |              |
| Delaware.....                   | 0        | 0            | 0        | 0            | 0        | 0            | 0        | 0            | 0        | 0            |
| Maryland.....                   | 84       | 0            | 50       | 0            | 48       | 0            | 130      | 0            | 154      | 22           |
| District of Columbia....        | 1, 057   | 18           | 1, 151   | 3            | 1, 185   | 20           | 1, 159   | 20           | 1, 193   | 15           |
| Virginia.....                   | 307      | 0            | 400      | 0            | 377      | 0            | 373      | 0            | 416      | 0            |
| West Virginia.....              | 26       | 0            | 27       | 0            | 25       | 1            | 47       | 0            | 68       | 1            |
| North Carolina.....             | 226      | 8            | 262      | 10           | 228      | 0            | 271      | 0            | 245      | 2            |
| South Carolina.....             | 61       | 0            | 37       | 0            | 23       | 0            | 55       | 0            | 24       | 0            |
| Georgia.....                    | 185      | 0            | 83       | 0            | 102      | 0            | 102      | 0            | 132      | 0            |
| Florida.....                    | 0        | 0            | 0        | 0            | 0        | 0            | 12       | 0            | 0        | 0            |
| <b>South Central Division:</b>  |          |              |          |              |          |              |          |              |          |              |
| Kentucky.....                   | 361      | 0            | 345      | 0            | 341      | 1            | 366      | 0            | 492      | 0            |
| Tennessee.....                  | 954      | 3            | 1, 333   | 2            | 1, 367   | 7            | 1, 183   | 10           | 1, 482   | 10           |
| Alabama.....                    | 30       | 0            | 44       | 0            | 48       | 0            | 28       | 0            | 42       | 0            |
| Mississippi.....                | 47       | 0            | 20       | 0            | 23       | 0            | 20       | 0            | 40       | 0            |
| Louisiana.....                  | 513      | 0            | 505      | 0            | 521      | 0            | 499      | 6            | 468      | 6            |
| Texas.....                      | 143      | 6            | 152      | 0            | 159      | 2            | 303      | 5            | 490      | 28           |
| Arkansas.....                   | 50       | 0            | 47       | 0            | 47       | 0            | 18       | 0            | 15       | 0            |
| Oklahoma.....                   | -----    | -----        | -----    | -----        | -----    | -----        | 0        | 0            | 0        | 0            |
| Indian Territory.....           | -----    | -----        | -----    | -----        | -----    | -----        | 8        | 0            | 0        | 0            |
| <b>North Central Division:</b>  |          |              |          |              |          |              |          |              |          |              |
| Ohio.....                       | 1, 246   | 18           | 1, 318   | 18           | 1, 335   | 14           | 1, 376   | 9            | 1, 223   | 1            |
| Indiana.....                    | 309      | 28           | 345      | 27           | 379      | 41           | 354      | 17           | 292      | 16           |
| Illinois.....                   | 2, 303   | 33           | 2, 673   | 149          | 2, 562   | 175          | 3, 118   | 145          | 3, 323   | 145          |
| Michigan.....                   | 1, 248   | 95           | 1, 385   | 103          | 1, 273   | 109          | 1, 265   | 99           | 1, 319   | 102          |
| Wisconsin.....                  | 312      | 4            | 323      | 2            | 372      | 4            | 351      | 3            | 445      | 6            |
| Minnesota.....                  | 476      | 17           | 561      | 20           | 615      | 25           | 629      | 25           | 733      | 31           |
| Iowa.....                       | 697      | 42           | 715      | 56           | 865      | 71           | 905      | 49           | 929      | 74           |
| Missouri.....                   | 267      | 0            | 375      | 0            | 474      | 0            | 474      | 0            | 637      | 2            |
| North Dakota.....               | 1        | 0            | 10       | 0            | 3        | 0            | 0        | 0            | 0        | 0            |
| South Dakota.....               | 0        | 0            | 0        | 0            | 0        | 0            | 0        | 0            | 0        | 0            |
| Nebraska.....                   | 74       | 4            | 186      | 10           | 198      | 10           | 289      | 20           | 373      | 30           |
| Kansas.....                     | 79       | 4            | 119      | 5            | 132      | 6            | 165      | 8            | 182      | 9            |
| <b>Western Division:</b>        |          |              |          |              |          |              |          |              |          |              |
| Montana.....                    | 0        | 0            | 0        | 0            | 0        | 0            | 0        | 0            | 0        | 0            |
| Wyoming.....                    | 0        | 0            | 0        | 0            | 0        | 0            | 0        | 0            | 0        | 0            |
| Colorado.....                   | 48       | 4            | 72       | 14           | 189      | 21           | 185      | 21           | 205      | 25           |
| New Mexico.....                 | -----    | -----        | -----    | -----        | -----    | -----        | 0        | 0            | 0        | 0            |
| Arizona.....                    | -----    | -----        | 0        | 0            | 0        | 0            | 0        | 0            | 0        | 0            |
| Utah.....                       | 0        | 0            | 0        | 0            | 0        | 0            | 0        | 0            | 0        | 0            |
| Nevada.....                     | 0        | 0            | 0        | 0            | 0        | 0            | 0        | 0            | 0        | 0            |
| Idaho.....                      | -----    | -----        | -----    | -----        | -----    | -----        | 0        | 0            | 0        | 0            |
| Washington.....                 | 4        | 0            | 4        | 0            | 4        | 0            | 0        | 0            | 21       | 5            |
| Oregon.....                     | 120      | 3            | 118      | 6            | 121      | 5            | 137      | 12           | 151      | 14           |
| California.....                 | 368      | 19           | 462      | 24           | 457      | 26           | 530      | 30           | 758      | 89           |

\* Professional students in Lake Forest University not reported.



TABLE 10.—*Students in all departments of universities and colleges from 1890-91 to 1894-95.*

| State or Territory.      | 1890-91.            |              | 1891-92.            |              | 1892-93.             |              | 1893-94.             |              | 1894-95. |              |
|--------------------------|---------------------|--------------|---------------------|--------------|----------------------|--------------|----------------------|--------------|----------|--------------|
|                          | Male.               | Fe-<br>male. | Male.               | Fe-<br>male. | Male.                | Fe-<br>male. | Male.                | Fe-<br>male. | Male.    | Fe-<br>male. |
| United States.....       | { (2,361)<br>92,589 | 29,734       | { (2,403)<br>99,827 | 31,515       | { (2,776)<br>104,347 | 32,930       | { (2,396)<br>106,109 | 35,127       | 112,503  | 37,436       |
| North Atlantic Division  | 25,436              | 2,366        | { (55)<br>27,739    | 2,587        | 29,632               | 2,602        | { (149)<br>30,672    | 2,830        | 32,180   | 3,203        |
| South Atlantic Division  | 10,223              | 2,093        | 10,883              | 2,288        | 10,921               | 2,516        | 11,507               | 2,821        | 12,160   | 2,963        |
| South Central Division   | { (218)<br>13,992   | 5,663        | { (509)<br>14,567   | 5,016        | { (692)<br>14,240    | 4,943        | { (901)<br>14,135    | 5,741        | 14,900   | 6,010        |
| North Central Division   | { (1,482)<br>38,699 | 17,561       | { (1,839)<br>42,042 | 19,498       | { (2,036)<br>44,132  | 20,247       | { (1,346)<br>43,737  | 20,261       | 46,155   | 21,425       |
| Western Division.....    | { (661)<br>4,239    | 2,051        | { 4,596             | 2,126        | { (48)<br>5,422      | 2,622        | { 6,058              | 3,474        | 7,108    | 3,835        |
| North Atlantic Division: |                     |              |                     |              |                      |              |                      |              |          |              |
| Maine.....               | 540                 | 72           | 544                 | 80           | 553                  | 115          | 569                  | 146          | 633      | 143          |
| New Hampshire.....       | 462                 | 0            | 426                 | 0            | 458                  | 0            | 494                  | 0            | 509      | 0            |
| Vermont.....             | 398                 | 44           | 478                 | 58           | 434                  | 65           | 453                  | 84           | 442      | 79           |
| Massachusetts.....       | 4,567               | 290          | 4,987               | 292          | 5,462                | 327          | 5,893                | 351          | 6,008    | 404          |
| Rhode Island.....        | 352                 | 0            | 403                 | 0            | 501                  | 48           | 583                  | 81           | 633      | 109          |
| Connecticut.....         | 1,972               | 59           | 2,117               | 55           | 2,296                | 83           | 2,496                | 100          | 2,649    | 113          |
| New York.....            | 9,982               | 877          | 10,152              | 962          | 10,072               | 942          | 10,762               | 853          | 10,705   | 924          |
| New Jersey.....          | 1,354               | 0            | 1,469               | 0            | 1,780                | 22           | 1,713                | 25           | 1,684    | 29           |
| Pennsylvania.....        | 5,809               | 1,024        | { (55)<br>7,163     | 1,140        | 8,076                | 1,000        | { (149)<br>7,709     | 1,190        | 8,917    | 1,402        |
| South Atlantic Division: |                     |              |                     |              |                      |              |                      |              |          |              |
| Delaware.....            | 81                  | 0            | 97                  | 0            | 90                   | 0            | 80                   | 0            | 78       | 0            |
| Maryland.....            | 1,658               | 227          | 1,951               | 318          | 1,906                | 278          | 1,830                | 234          | 1,926    | 254          |
| District of Columbia     | 1,750               | 115          | 2,002               | 158          | 1,984                | 180          | 2,010                | 320          | 2,201    | 260          |
| Virginia.....            | 1,593               | 0            | 1,721               | 32           | 1,719                | 40           | 1,763                | 208          | 1,991    | 244          |
| West Virginia.....       | 361                 | 63           | 393                 | 70           | 465                  | 148          | 445                  | 156          | 470      | 141          |
| North Carolina.....      | 1,899               | 508          | 1,844               | 494          | 1,826                | 474          | 2,265                | 595          | 2,069    | 574          |
| South Carolina.....      | 1,154               | 210          | 1,125               | 257          | 1,258                | 455          | 1,176                | 395          | 1,283    | 389          |
| Georgia.....             | 1,455               | 697          | 1,457               | 660          | 1,397                | 645          | 1,622                | 630          | 1,771    | 793          |
| Florida.....             | 272                 | 273          | 293                 | 299          | 276                  | 296          | 316                  | 283          | 371      | 308          |
| South Central Division:  |                     |              |                     |              |                      |              |                      |              |          |              |
| Kentucky.....            | 2,109               | 405          | 2,807               | 404          | 3,029                | 573          | { (464)<br>2,272     | 818          | 2,498    | 781          |
| Tennessee.....           | { (40)<br>4,565     | 1,489        | { 4,881             | 1,402        | { (145)<br>4,694     | 1,320        | 4,591                | 1,636        | 5,000    | 1,953        |
| Alabama.....             | 1,196               | 534          | 1,221               | 468          | 957                  | 326          | 1,205                | 447          | 1,213    | 345          |
| Mississippi.....         | 757                 | 329          | 715                 | 301          | 752                  | 234          | 781                  | 239          | 819      | 219          |
| Louisiana.....           | 2,604               | 1,217        | { (509)<br>2,358    | 884          | 2,174                | 926          | { (437)<br>1,892     | 575          | 1,735    | 578          |
| Texas.....               | 2,188               | 1,358        | 2,189               | 1,145        | { (547)<br>2,195     | 1,051        | 2,524                | 1,315        | 2,660    | 1,278        |
| Arkansas.....            | { (178)<br>573      | 331          | 696                 | 412          | 658                  | 453          | 740                  | 608          | 797      | 687          |
| Oklahoma.....            |                     |              |                     |              | 61                   | 60           | 91                   | 72           | 101      | 85           |
| Indian Territory.....    |                     |              |                     |              |                      |              | 39                   | 31           | 77       | 84           |
| North Central Division:  |                     |              |                     |              |                      |              |                      |              |          |              |
| Ohio.....                | { (843)<br>7,767    | 3,580        | { (574)<br>8,086    | 3,623        | { (289)<br>8,598     | 3,967        | 8,116                | 3,970        | 8,323    | 4,339        |
| Indiana.....             | 3,161               | 1,120        | { (264)<br>3,305    | 1,083        | { (22)<br>3,267      | 1,150        | 2,946                | 1,074        | 2,983    | 1,096        |
| Illinois.....            | { (97)<br>7,833     | 2,542        | { (130)<br>8,055    | 2,981        | { (128)<br>8,456     | 2,962        | { (784)<br>9,327     | 3,141        | 10,884   | 3,861        |
| Michigan.....            | 3,687               | 1,697        | { (213)<br>4,299    | 2,081        | { (145)<br>4,298     | 1,991        | 4,028                | 1,951        | 4,184    | 2,073        |
| Wisconsin.....           | 2,130               | 472          | 2,427               | 658          | 2,474                | 674          | 2,423                | 600          | 2,646    | 639          |
| Minnesota.....           | 2,173               | 821          | 2,415               | 772          | 2,569                | 962          | 2,496                | 1,029        | 2,712    | 1,120        |
| Iowa.....                | { (284)<br>4,002    | 2,756        | { (348)<br>4,075    | 2,916        | { (1,184)<br>3,995   | 2,415        | 4,014                | 2,651        | 4,118    | 2,497        |
| Missouri.....            | 3,976               | 1,815        | 4,912               | 2,326        | 5,097                | 2,479        | { (42)<br>4,926      | 2,251        | 4,650    | 2,082        |
| North Dakota.....        | 130                 | 102          | 243                 | 271          | 280                  | 237          | 224                  | 205          | 236      | 208          |
| South Dakota.....        | { (224)<br>416      | 368          | 496                 | 429          | 561                  | 569          | 520                  | 512          | 498      | 457          |
| Nebraska.....            | 1,103               | 698          | 1,199               | 837          | 1,582                | 978          | { (174)<br>2,082     | 1,199        | 2,179    | 1,263        |
| Kansas.....              | { (34)<br>2,321     | 1,590        | { (310)<br>2,530    | 1,521        | { (268)<br>2,955     | 1,863        | { (346)<br>2,635     | 1,678        | 2,733    | 1,790        |
| Western Division:        |                     |              |                     |              |                      |              |                      |              |          |              |
| Montana.....             | 58                  | 69           | 69                  | 31           | 49                   | 35           | 50                   | 47           | 21       | 20           |
| Wyoming.....             | 37                  | 38           | 62                  | 58           | 53                   | 55           | 49                   | 59           | 59       | 47           |
| Colorado.....            | { (583)<br>374      | 203          | 448                 | 226          | { (48)<br>658        | 389          | 474                  | 239          | 727      | 382          |
| New Mexico.....          |                     |              |                     |              | 54                   | 54           | 64                   | 80           | 41       | 52           |

a Does not include statistics of Baylor University.



TABLE 10.—*Students in all departments of universities and colleges, etc.—Continued.*

| State or Territory.   | 1890-91.                  |              | 1891-92.  |              | 1892-93. |              | 1893-94. |              | 1894-95. |              |
|-----------------------|---------------------------|--------------|-----------|--------------|----------|--------------|----------|--------------|----------|--------------|
|                       | Male.                     | Fe-<br>male. | Male.     | Fe-<br>male. | Male.    | Fe-<br>male. | Male.    | Fe-<br>male. | Male.    | Fe-<br>male. |
| Western Division—Con. |                           |              |           |              |          |              |          |              |          |              |
| Arizona.....          |                           |              | 17        | 14           | 26       | 12           | 40       | 18           | 24       | 29           |
| Utah.....             | 181                       | 154          | 77        | 59           | 187      | 181          | 184      | 201          | 412      | 336          |
| Nevada.....           | 77                        | 86           | 68        | 87           | 81       | 105          | 95       | 97           | 116      | 149          |
| Idaho.....            |                           |              |           |              | 88       | 47           | 145      | 87           | 137      | 83           |
| Washington.....       | 381                       | 275          | 380       | 236          | 432      | 198          | 503      | 563          | 622      | 480          |
| Oregon.....           | 631                       | 496          | 599       | 545          | 587      | 525          | 767      | 719          | 842      | 737          |
| California.....       | { 2,500 <sup>(78)</sup> } |              | { 2,876 } |              | 3,207    | 1,021        | 3,687    | 1,364        | 4,107    | 1,520        |
|                       |                           | 730          |           | 870          |          |              |          |              |          |              |

TABLE 11.—*Volumes in libraries of universities and colleges from 1890-91 to 1894-95.*

| State or Territory.          | 1890-91.  | 1891-92.  | 1892-93.  | 1893-94.  | 1894-95.  |
|------------------------------|-----------|-----------|-----------|-----------|-----------|
| United States.....           | 4,492,902 | 4,679,605 | 5,275,302 | 5,621,757 | 6,092,673 |
| North Atlantic Division..... | 2,201,228 | 2,286,497 | 2,457,673 | 2,585,650 | 2,764,988 |
| South Atlantic Division..... | 522,297   | 530,031   | 573,561   | 620,389   | 664,869   |
| South Central Division.....  | 322,447   | 324,431   | 347,895   | 373,641   | 404,166   |
| North Central Division.....  | 1,286,842 | 1,342,042 | 1,687,358 | 1,807,740 | 1,960,424 |
| Western Division.....        | 160,088   | 196,604   | 208,815   | 234,337   | 298,226   |
| North Atlantic Division:     |           |           |           |           |           |
| Maine.....                   | 89,117    | 87,051    | 91,803    | 98,630    | 102,923   |
| New Hampshire.....           | 72,000    | 73,000    | 73,500    | 75,000    | 75,000    |
| Vermont.....                 | 58,766    | 60,452    | 62,461    | 63,735    | 66,695    |
| Massachusetts.....           | 571,150   | 596,470   | 643,650   | 650,563   | 688,294   |
| Rhode Island.....            | 70,000    | 71,000    | 80,000    | 80,000    | 82,000    |
| Connecticut.....             | 278,501   | 274,000   | 275,000   | 280,000   | 299,172   |
| New York.....                | 636,552   | 629,784   | 678,195   | 722,915   | 776,771   |
| New Jersey.....              | 108,062   | 117,668   | 137,926   | 133,869   | 215,145   |
| Pennsylvania.....            | 317,080   | 377,072   | 415,138   | 450,938   | 458,988   |
| South Atlantic Division:     |           |           |           |           |           |
| Delaware.....                | 4,500     | 5,475     | 6,007     | 6,267     | 6,736     |
| Maryland.....                | 126,907   | 127,770   | 144,520   | 150,520   | 158,700   |
| District of Columbia.....    | 68,000    | 81,000    | 92,782    | 95,531    | 104,700   |
| Virginia.....                | 134,050   | 134,350   | 137,000   | 141,650   | 151,975   |
| West Virginia.....           | 6,200     | 7,200     | 9,446     | 10,767    | 14,785    |
| North Carolina.....          | 72,100    | 68,056    | 70,966    | 80,600    | 88,200    |
| South Carolina.....          | 54,000    | 53,950    | 59,200    | 63,950    | 65,075    |
| Georgia.....                 | 49,300    | 45,000    | 45,800    | 61,204    | 62,348    |
| Florida.....                 | 7,240     | 7,230     | 7,960     | 9,900     | 12,350    |
| South Central Division:      |           |           |           |           |           |
| Kentucky.....                | 55,910    | 48,380    | 50,713    | 50,888    | 59,531    |
| Tennessee.....               | 109,537   | 122,568   | 130,344   | 134,858   | 150,691   |
| Alabama.....                 | 26,200    | 25,300    | 31,600    | 36,850    | 37,090    |
| Mississippi.....             | 22,950    | 20,700    | 23,000    | 24,000    | 26,000    |
| Louisiana.....               | 84,600    | 71,800    | 75,000    | 76,100    | 76,100    |
| Texas.....                   | 25,600    | 26,483    | 27,438    | 36,145    | 37,094    |
| Arkansas.....                | 6,650     | 9,200     | 9,200     | 12,800    | 14,350    |
| Oklahoma.....                |           |           | 600       | 1,200     | 2,000     |
| Indian Territory.....        |           |           |           | 800       | 1,400     |
| North Central Division:      |           |           |           |           |           |
| Ohio.....                    | 303,272   | 307,938   | 320,837   | 357,693   | 346,930   |
| Indiana.....                 | 148,100   | 156,725   | 180,900   | 181,876   | 180,030   |
| Illinois.....                | 177,173   | 181,802   | 434,584   | 499,940   | 509,956   |
| Michigan.....                | 153,427   | 172,473   | 172,734   | 181,576   | 194,280   |
| Wisconsin.....               | 94,900    | 103,850   | 101,900   | 105,950   | 212,397   |
| Minnesota.....               | 53,221    | 66,405    | 72,525    | 73,883    | 80,325    |
| Iowa.....                    | 110,297   | 118,719   | 126,151   | 123,697   | 134,889   |
| Missouri.....                | 134,015   | 110,150   | 139,503   | 137,551   | 141,688   |
| North Dakota.....            | 5,700     | 5,700     | 7,740     | 7,068     | 7,268     |
| South Dakota.....            | 10,539    | 11,290    | 11,525    | 9,277     | 11,175    |
| Nebraska.....                | 33,866    | 36,950    | 41,559    | 49,474    | 56,086    |
| Kansas.....                  | 62,832    | 70,040    | 77,400    | 79,755    | 85,400    |
| Western Division:            |           |           |           |           |           |
| Montana.....                 | 1,200     | 1,200     | 1,200     | 1,500     | 2,000     |
| Wyoming.....                 | 2,300     | 2,300     | 2,650     | 2,926     | 3,307     |
| Colorado.....                | 20,944    | 22,800    | 22,500    | 22,000    | 51,700    |
| New Mexico.....              |           |           | 500       | 500       | 500       |
| Arizona.....                 |           | 600       |           | 872       | 1,000     |
| Utah.....                    | 10,000    | 12,000    | 10,500    | 15,000    | 18,000    |
| Nevada.....                  | 1,932     | 3,018     | 3,468     | 4,920     | 4,013     |
| Idaho.....                   |           |           | 1,585     | 2,000     | 2,585     |
| Washington.....              | 7,700     | 8,064     | 10,232    | 11,964    | 12,820    |
| Oregon.....                  | 16,600    | 16,320    | 17,730    | 18,425    | 20,736    |
| California.....              | 99,412    | 130,302   | 138,450   | 154,230   | 181,565   |

TABLE 12.—*Value of scientific apparatus and libraries in universities and colleges from 1889-90 to 1894-95.*

| State or Territory.          | 1889-90.       | 1891-92.       | 1892-93.       | 1893-94.       | 1894-95.       |
|------------------------------|----------------|----------------|----------------|----------------|----------------|
| United States.....           | \$10, 183, 385 | \$11, 638, 272 | \$13, 056, 419 | \$13, 865, 087 | \$15, 258, 111 |
| North Atlantic Division..... | 5, 610, 863    | 6, 318, 070    | 6, 862, 916    | 7, 089, 731    | 7, 349, 226    |
| South Atlantic Division..... | 996, 425       | 1, 047, 500    | 1, 056, 956    | 1, 143, 884    | 1, 212, 853    |
| South Central Division.....  | 556, 871       | 646, 598       | 713, 589       | 732, 295       | 880, 936       |
| North Central Division.....  | 2, 575, 176    | 3, 349, 135    | 3, 590, 335    | 3, 954, 577    | 4, 897, 587    |
| Western Division.....        | 444, 050       | 326, 969       | 832, 623       | 944, 600       | 917, 509       |
| North Atlantic Division:     |                |                |                |                |                |
| Maine.....                   | 89, 000        | 95, 600        | 114, 397       | 114, 397       | 175, 000       |
| New Hampshire.....           | 109, 000       | 106, 000       | 100, 000       | 100, 000       | 100, 000       |
| Vermont.....                 | 125, 000       | 150, 000       | 135, 000       | 173, 000       | 205, 000       |
| Massachusetts.....           | 1, 020, 000    | 1, 340, 145    | 1, 853, 263    | 1, 231, 748    | 1, 324, 000    |
| Rhode Island.....            | 500, 000       | 527, 000       | 538, 200       | 538, 200       | 538, 200       |
| Connecticut.....             | 609, 630       | 613, 430       | 632, 200       | 650, 635       | 648, 755       |
| New York.....                | 2, 005, 733    | 2, 116, 165    | 2, 307, 416    | 2, 642, 039    | 2, 664, 037    |
| New Jersey.....              | 551, 200       | 552, 000       | 565, 800       | 570, 000       | 676, 000       |
| Pennsylvania.....            | 619, 300       | 824, 330       | 1, 116, 640    | 1, 019, 712    | 1, 023, 234    |
| South Atlantic Division:     |                |                |                |                |                |
| Delaware.....                | 6, 060         | 27, 000        | 35, 000        | 36, 334        | 38, 700        |
| Maryland.....                | 204, 050       | 229, 160       | 230, 700       | 253, 200       | 249, 300       |
| District of Columbia.....    | 150, 000       | 160, 000       | 150, 000       | 143, 000       | 145, 000       |
| Virginia.....                | 340, 860       | 351, 900       | 344, 900       | 403, 200       | 444, 568       |
| West Virginia.....           | 20, 200        | 17, 300        | 20, 200        | 25, 000        | 31, 000        |
| North Carolina.....          | 131, 000       | 107, 500       | 113, 000       | 110, 200       | 105, 500       |
| South Carolina.....          | 39, 069        | 37, 700        | 44, 100        | 45, 200        | 67, 525        |
| Georgia.....                 | 97, 300        | 106, 260       | 109, 056       | 114, 750       | 114, 260       |
| Florida.....                 | 8, 075         | 10, 700        | 10, 000        | 13, 000        | 17, 000        |
| South Central Division:      |                |                |                |                |                |
| Kentucky.....                | 74, 560        | 64, 600        | 64, 000        | 66, 000        | 79, 706        |
| Tennessee.....               | 211, 550       | 214, 000       | 269, 556       | 265, 120       | 238, 830       |
| Alabama.....                 | 60, 500        | 84, 100        | 98, 350        | 118, 675       | 154, 375       |
| Mississippi.....             | 58, 550        | 66, 200        | 67, 300        | 70, 000        | 112, 400       |
| Louisiana.....               | 89, 950        | 106, 098       | 103, 683       | 99, 500        | 107, 000       |
| Texas.....                   | 61, 061        | 95, 500        | 97, 900        | 97, 350        | 119, 025       |
| Arkansas.....                | 740            | 16, 000        | 12, 500        | 13, 950        | 14, 000        |
| Oklahoma.....                |                |                | 500            | 1, 200         | 4, 000         |
| Indian Territory.....        |                |                |                | 500            | 1, 600         |
| North Central Division:      |                |                |                |                |                |
| Ohio.....                    | 478, 953       | 598, 022       | 627, 389       | 837, 050       | 867, 768       |
| Indiana.....                 | 217, 300       | 301, 200       | 327, 144       | 304, 494       | 362, 500       |
| Illinois.....                | 270, 800       | 454, 200       | 572, 893       | 735, 950       | 789, 200       |
| Michigan.....                | 545, 527       | 556, 555       | 651, 266       | 668, 690       | 651, 138       |
| Wisconsin.....               | 214, 663       | 244, 000       | 266, 500       | 269, 500       | 667, 200       |
| Minnesota.....               | 199, 128       | 264, 193       | 183, 378       | 198, 520       | 214, 352       |
| Iowa.....                    | 126, 225       | 196, 125       | 213, 500       | 227, 823       | 355, 654       |
| Missouri.....                | 236, 550       | 230, 490       | 186, 000       | 201, 050       | 343, 125       |
| North Dakota.....            | 10, 000        | 30, 600        | 37, 500        | 21, 250        | 27, 750        |
| South Dakota.....            | 29, 720        | 30, 850        | 22, 025        | 10, 050        | 22, 750        |
| Nebraska.....                | 71, 000        | 137, 200       | 203, 400       | 215, 300       | 213, 150       |
| Kansas.....                  | 175, 300       | 306, 200       | 299, 300       | 324, 000       | 392, 000       |
| Western Division:            |                |                |                |                |                |
| Montana.....                 | 1, 500         | 1, 000         | 2, 000         | 2, 500         | 3, 500         |
| Wyoming.....                 | 3, 000         |                | 2, 500         | 25, 000        | 35, 000        |
| Colorado.....                | 23, 800        | 45, 500        | 62, 800        | 93, 500        | 85, 950        |
| New Mexico.....              | 0              |                | 750            | 500            | 500            |
| Arizona.....                 |                | 17, 769        | 26, 475        | 35, 000        | 40, 000        |
| Utah.....                    | 25, 000        | 29, 000        | 30, 000        | 45, 000        | 51, 047        |
| Nevada.....                  | 1, 000         | 25, 000        | 36, 100        | 25, 000        | 21, 462        |
| Idaho.....                   |                |                | 4, 498         | 15, 000        | 18, 400        |
| Washington.....              | 3, 850         | 6, 100         | 15, 300        | 29, 450        | 30, 700        |
| Oregon.....                  | 13, 200        | 32, 200        | 22, 600        | 23, 400        | 39, 700        |
| California.....              | 372, 700       | 170, 400       | 629, 600       | 650, 250       | 591, 250       |

TABLE 13.—*Value of grounds and buildings of universities and colleges, from 1889-90 to 1894-95.*

| State or Territory.             | 1889-90.       | 1891-92.       | 1892-93.       | 1893-94.        | 1894-95.        |
|---------------------------------|----------------|----------------|----------------|-----------------|-----------------|
| United States .....             | \$68, 379, 344 | \$88, 549, 901 | \$95, 945, 681 | \$104, 874, 013 | \$114, 362, 542 |
| North Atlantic Division.....    | 26, 066, 374   | 33, 423, 652   | 36, 193, 760   | 39, 040, 076    | 44, 290, 995    |
| South Atlantic Division.....    | 6, 791, 500    | 8, 640, 700    | 9, 384, 750    | 10, 859, 200    | 11, 703, 834    |
| South Central Division.....     | 6, 223, 583    | 7, 758, 310    | 8, 634, 625    | 8, 749, 828     | 9, 288, 565     |
| North Central Division.....     | 24, 150, 299   | 27, 470, 815   | 31, 725, 296   | 34, 237, 829    | 35, 991, 064    |
| Western Division.....           | 5, 147, 588    | 11, 256, 424   | 10, 007, 250   | 11, 987, 080    | 13, 088, 084    |
| <b>North Atlantic Division:</b> |                |                |                |                 |                 |
| Maine.....                      | 650, 000       | 650, 000       | 678, 936       | 900, 000        | 950, 000        |
| New Hampshire.....              | 250, 000       | 250, 000       | 250, 000       | 500, 000        | 500, 000        |
| Vermont.....                    | 375, 000       | 375, 000       | 450, 000       | 500, 000        | 642, 000        |
| Massachusetts.....              | 5, 013, 000    | 6, 867, 600    | 7, 062, 500    | 7, 171, 000     | 7, 489, 450     |
| Rhode Island.....               | 625, 000       | 982, 490       | 1, 250, 000    | 1, 250, 000     | 1, 165, 967     |
| Connecticut.....                | 4, 400, 000    | 4, 650, 000    | 4, 640, 000    | 6, 712, 300     | 6, 989, 780     |
| New York.....                   | 7, 659, 374    | 11, 064, 962   | 11, 859, 587   | 12, 103, 635    | 15, 439, 845    |
| New Jersey.....                 | 1, 495, 000    | 1, 535, 000    | 1, 980, 000    | 1, 920, 000     | 2, 472, 000     |
| Pennsylvania.....               | 5, 599, 000    | 7, 048, 600    | 8, 022, 737    | 7, 983, 141     | 8, 641, 953     |
| <b>South Atlantic Division:</b> |                |                |                |                 |                 |
| Delaware.....                   | 75, 000        | 80, 000        | 80, 000        | 80, 000         | 82, 000         |
| Maryland.....                   | 1, 449, 900    | 1, 704, 000    | 1, 762, 000    | 1, 787, 000     | 2, 010, 000     |
| District of Columbia.....       | 1, 000, 000    | 2, 000, 000    | 2, 200, 000    | 2, 500, 000     | 2, 600, 000     |
| Virginia.....                   | 1, 681, 100    | 1, 702, 000    | 1, 694, 000    | 2, 123, 000     | 2, 283, 634     |
| West Virginia.....              | 235, 000       | 235, 000       | 345, 000       | 332, 000        | 432, 000        |
| North Carolina.....             | 827, 500       | 1, 146, 000    | 1, 110, 000    | 1, 226, 200     | 1, 333, 200     |
| South Carolina.....             | 600, 000       | 670, 000       | 776, 000       | 865, 000        | 923, 500        |
| Georgia.....                    | 848, 000       | 891, 000       | 1, 156, 750    | 1, 666, 000     | 1, 723, 500     |
| Florida.....                    | 75, 000        | 212, 700       | 261, 000       | 280, 000        | 316, 000        |
| <b>South Central Division:</b>  |                |                |                |                 |                 |
| Kentucky.....                   | 779, 750       | 1, 080, 000    | 1, 072, 000    | 1, 024, 000     | 1, 098, 500     |
| Tennessee.....                  | 2, 175, 000    | 3, 062, 400    | 3, 140, 870    | 2, 910, 450     | 3, 374, 750     |
| Alabama.....                    | 792, 000       | 859, 000       | 854, 500       | 928, 500        | 880, 500        |
| Mississippi.....                | 409, 500       | 401, 000       | 455, 000       | 480, 000        | 450, 000        |
| Louisiana.....                  | 1, 131, 533    | 1, 067, 910    | 1, 437, 255    | 1, 668, 378     | 1, 748, 000     |
| Texas.....                      | 832, 800       | 1, 023, 000    | 1, 375, 000    | 1, 356, 500     | 1, 291, 815     |
| Arkansas.....                   | 103, 000       | 265, 000       | 255, 000       | 297, 000        | 350, 000        |
| Oklahoma.....                   |                |                | 45, 000        | 50, 000         | 45, 000         |
| Indian Territory.....           |                |                |                | 35, 000         | 50, 000         |
| <b>North Central Division:</b>  |                |                |                |                 |                 |
| Ohio.....                       | 5, 001, 235    | 5, 656, 605    | 6, 133, 304    | 6, 678, 000     | 7, 272, 250     |
| Indiana.....                    | 2, 025, 000    | 2, 301, 652    | 2, 335, 304    | 3, 906, 632     | 4, 080, 692     |
| Illinois.....                   | 3, 187, 825    | 3, 729, 775    | 5, 996, 700    | 6, 453, 400     | 6, 756, 000     |
| Michigan.....                   | 1, 694, 865    | 1, 801, 883    | 1, 792, 415    | 1, 818, 922     | 2, 123, 264     |
| Wisconsin.....                  | 2, 418, 500    | 1, 871, 000    | 2, 159, 000    | 2, 141, 000     | 2, 267, 000     |
| Minnesota.....                  | 2, 437, 824    | 2, 298, 375    | 2, 853, 232    | 2, 629, 237     | 2, 736, 493     |
| Iowa.....                       | 1, 664, 000    | 2, 093, 975    | 2, 270, 341    | 2, 317, 528     | 2, 420, 765     |
| Missouri.....                   | 2, 381, 000    | 3, 666, 000    | 3, 931, 700    | 4, 203, 200     | 4, 261, 100     |
| North Dakota.....               | 180, 000       | 270, 000       | 290, 000       | 205, 000        | 183, 000        |
| South Dakota.....               | 355, 000       | 344, 000       | 372, 650       | 439, 000        | 434, 000        |
| Nebraska.....                   | 1, 043, 000    | 1, 853, 500    | 1, 988, 650    | 1, 702, 550     | 1, 759, 000     |
| Kansas.....                     | 1, 762, 050    | 1, 584, 050    | 1, 602, 030    | 1, 743, 300     | 1, 697, 500     |
| <b>Western Division:</b>        |                |                |                |                 |                 |
| Montana.....                    | 113, 000       | 60, 000        | 50, 000        | 50, 000         | 100, 000        |
| Wyoming.....                    | 150, 000       | 150, 000       | 100, 000       | 125, 000        | 120, 000        |
| Colorado.....                   | 1, 700, 000    | 1, 930, 000    | 786, 300       | 1, 102, 680     | 1, 030, 130     |
| New Mexico.....                 | 5, 500         |                | 35, 000        | 40, 000         | 50, 000         |
| Arizona.....                    |                | 73, 524        | 66, 700        | 66, 000         | 66, 500         |
| Utah.....                       | 240, 000       | 217, 000       | 280, 000       | 280, 000        | 411, 536        |
| Nevada.....                     | 150, 000       | 75, 000        | 81, 350        | 85, 500         | 68, 220         |
| Idaho.....                      |                |                | 40, 000        | 150, 000        | 123, 000        |
| Washington.....                 | 578, 000       | 660, 900       | 529, 000       | 1, 004, 000     | 1, 704, 000     |
| Oregon.....                     | 302, 000       | 408, 000       | 455, 000       | 536, 000        | 835, 000        |
| California.....                 | 1, 909, 088    | 7, 682, 900    | 7, 583, 900    | 8, 567, 900     | 8, 579, 698     |

TABLE 14.—*Productive funds of universities and colleges from 1889-90 to 1894-95.*

| State or Territory.           | 1889-90.           | 1891-92.     | 1892-93.     | 1893-94.     | 1894-95.      |
|-------------------------------|--------------------|--------------|--------------|--------------|---------------|
| United States .....           | \$77,366,415       | \$87,306,333 | \$95,134,258 | \$99,496,652 | \$102,574,808 |
| North Atlantic Division ..... | 42,655,565         | 47,846,357   | 52,401,159   | 55,194,531   | 56,464,932    |
| South Atlantic Division ..... | 6,403,206          | 7,209,338    | 7,556,281    | 7,665,215    | 7,726,957     |
| South Central Division .....  | 6,171,713          | 6,625,058    | 6,945,608    | 6,960,512    | 6,963,563     |
| North Central Division .....  | 19,300,335         | 22,393,818   | 24,988,354   | 26,280,295   | 27,692,957    |
| Western Division .....        | 2,835,596          | 3,231,762    | 3,242,856    | 3,396,099    | 3,726,399     |
| North Atlantic Division:      |                    |              |              |              |               |
| Maine .....                   | 1,245,000          | 1,339,000    | 1,332,933    | 1,321,000    | 1,356,070     |
| New Hampshire .....           | <i>a</i> 1,000,000 | 1,028,336    | 1,100,000    | 1,076,622    | 1,076,622     |
| Vermont .....                 | 529,436            | 623,652      | 630,000      | 631,000      | 783,890       |
| Massachusetts .....           | 10,641,083         | 11,317,771   | 13,252,923   | 13,553,115   | 13,447,093    |
| Rhode Island .....            | 980,836            | 1,200,000    | 1,130,369    | 1,201,531    | 1,159,833     |
| Connecticut .....             | 4,710,811          | 4,973,532    | 5,501,912    | 5,323,295    | 5,623,500     |
| New York .....                | 16,362,158         | 19,489,242   | 21,528,434   | 22,576,060   | 23,183,678    |
| New Jersey .....              | <i>a</i> 2,500,000 | 2,700,000    | 2,700,000    | 3,200,000    | 3,500,000     |
| Pennsylvania .....            | 4,686,241          | 5,174,230    | 5,224,588    | 6,311,908    | 6,334,246     |
| South Atlantic Division:      |                    |              |              |              |               |
| Delaware .....                | 83,000             | 83,000       | 83,000       | 83,000       | 83,000        |
| Maryland .....                | 3,035,000          | 3,058,500    | 3,043,500    | 3,048,500    | 3,052,000     |
| District of Columbia .....    | 430,000            | 435,000      | 425,000      | 415,000      | 374,700       |
| Virginia .....                | 1,391,048          | 1,712,599    | 1,775,816    | 1,867,982    | 1,927,354     |
| West Virginia .....           | 108,150            | 107,150      | 110,140      | 111,200      | 110,000       |
| North Carolina .....          | 357,806            | 525,000      | 521,027      | 518,316      | 544,000       |
| South Carolina .....          | 203,000            | 277,000      | 532,000      | 532,000      | 538,700       |
| Georgia .....                 | 775,202            | 909,089      | 919,798      | 940,217      | 906,203       |
| Florida .....                 | 20,000             | 102,000      | 146,000      | 149,000      | 191,000       |
| South Central Division:       |                    |              |              |              |               |
| Kentucky .....                | 1,147,000          | 1,126,358    | 1,166,233    | 1,222,453    | 1,251,770     |
| Tennessee .....               | 1,847,400          | 2,077,000    | 2,163,000    | 2,140,740    | 2,204,740     |
| Alabama .....                 | 325,000            | 350,000      | 353,000      | 351,200      | 365,000       |
| Mississippi .....             | 574,000            | 588,900      | 708,061      | 704,400      | 710,800       |
| Louisiana .....               | 1,616,313          | 1,740,000    | 1,801,814    | 1,759,398    | 1,707,313     |
| Texas .....                   | 662,000            | 727,300      | 738,000      | 736,821      | 688,440       |
| Arkansas .....                |                    | 15,500       | 15,500       | 45,500       | 35,500        |
| North Central Division:       |                    |              |              |              |               |
| Ohio .....                    | 5,072,062          | 5,965,285    | 6,525,165    | 6,652,697    | 7,639,647     |
| Indiana .....                 | 1,711,129          | 1,778,966    | 1,744,368    | 1,760,582    | 1,771,187     |
| Illinois .....                | 3,849,569          | 3,852,527    | 5,743,239    | 6,749,590    | 6,886,955     |
| Michigan .....                | 1,508,062          | 1,586,984    | 1,605,731    | 1,591,703    | 1,587,805     |
| Wisconsin .....               | 891,516            | 1,294,743    | 1,318,500    | 1,378,743    | 1,396,551     |
| Minnesota .....               | 1,324,876          | 1,670,400    | 1,634,554    | 1,666,750    | 1,615,542     |
| Iowa .....                    | 1,231,714          | 1,433,591    | 1,473,291    | 1,547,502    | 1,512,176     |
| Missouri .....                | 1,975,207          | 2,682,667    | 2,797,729    | 2,955,958    | 3,051,625     |
| North Dakota .....            | 25,000             | 25,000       | 25,000       | 0            | 0             |
| South Dakota .....            | 11,000             | 61,000       | 85,000       | 85,000       | 100,000       |
| Nebraska .....                | 1,236,700          | 1,415,155    | 1,434,777    | 1,222,770    | 1,471,422     |
| Kansas .....                  | 463,500            | 627,500      | 601,000      | 669,000      | 660,047       |
| Western Division:             |                    |              |              |              |               |
| Colorado .....                | 354,000            | 452,000      | 387,728      | 387,729      | 470,000       |
| Utah .....                    |                    |              |              | 0            | 291,427       |
| Idaho .....                   |                    |              |              | 3,487        | 3,487         |
| Washington .....              | 12,000             |              | 4,000        | 3,500        | 8,000         |
| Oregon .....                  | 237,000            | 357,978      | 328,000      | 371,000      | 370,000       |
| California .....              | 2,232,596          | 2,421,784    | 2,523,128    | 2,630,383    | 2,583,485     |

*a* Estimated.



TABLE 15.—*Benefactions to universities and colleges from 1890-91 to 1894-95.*

| State or Territory.           | 1890-91.      | 1891-92.      | 1892-93.      | 1893-94.      | 1894-95.      |
|-------------------------------|---------------|---------------|---------------|---------------|---------------|
| United States .....           | \$6, 849, 208 | \$6, 461, 428 | \$6, 532, 157 | \$9, 025, 240 | \$5, 350, 963 |
| North Atlantic Division ..... | 2, 933, 656   | 3, 637, 016   | 2, 460, 662   | 2, 302, 843   | 2, 575, 692   |
| South Atlantic Division ..... | 982, 363      | 305, 812      | 294, 905      | 196, 505      | 235, 722      |
| South Central Division .....  | 452, 461      | 391, 349      | 366, 417      | 302, 446      | 188, 445      |
| North Central Division .....  | 2, 226, 853   | 2, 023, 604   | 2, 210, 708   | 3, 370, 249   | 2, 110, 220   |
| Western Division .....        | 253, 875      | 106, 657      | 199, 465      | 2, 853, 197   | 240, 884      |
| North Atlantic Division:      |               |               |               |               |               |
| Maine .....                   | 2, 000        | 108, 000      | 151, 600      | 167, 105      | 23, 617       |
| New Hampshire .....           |               | 84, 604       |               | 15, 127       |               |
| Vermont .....                 | 650           | 61, 768       | 116, 800      | 7, 450        | 367, 250      |
| Massachusetts .....           | 324, 355      | 429, 000      | 729, 133      | 277, 580      | 289, 983      |
| Rhode Island .....            | 222, 119      | 31, 754       | 66, 000       | 69, 224       | 16, 500       |
| Connecticut .....             | 457, 986      | 474, 360      | 228, 686      | 400, 949      | 369, 070      |
| New York .....                | 1, 391, 276   | 2, 022, 008   | 698, 415      | 573, 264      | 979, 459      |
| New Jersey .....              | 25, 000       |               |               |               |               |
| Pennsylvania .....            | 450, 270      | 425, 522      | 470, 628      | 792, 144      | 523, 813      |
| South Atlantic Division:      |               |               |               |               |               |
| Maryland .....                | 128, 860      | 13, 060       | 12, 310       | 20, 699       | 8, 322        |
| District of Columbia .....    |               |               | 4, 239        | 5, 200        | 10, 472       |
| Virginia .....                | 414, 600      | 115, 400      | 85, 110       | 22, 565       | 17, 995       |
| West Virginia .....           | 2, 550        | 2             | 6, 071        | 3, 500        |               |
| North Carolina .....          | 253, 000      | 54, 700       | 1, 000        | 30, 352       | 48, 500       |
| South Carolina .....          | 24, 600       | 24, 000       | 21, 805       | 4, 600        | 2, 200        |
| Georgia .....                 | 149, 350      | 81, 622       | 43, 469       | 33, 922       | 72, 733       |
| Florida .....                 | 10, 003       | 17, 023       | 120, 901      | 75, 667       | 75, 500       |
| South Central Division:       |               |               |               |               |               |
| Kentucky .....                | 131, 200      | 69, 584       | 32, 956       | 51, 725       | 77, 965       |
| Tennessee .....               | 53, 448       | 105, 785      | 76, 388       | 58, 776       | 72, 849       |
| Alabama .....                 | 18, 525       | 5, 150        | 7, 000        | 2, 025        |               |
| Mississippi .....             | 40, 000       | 3, 000        | 1, 000        | 4, 864        | 4, 000        |
| Louisiana .....               | 100, 710      | 51, 230       | 212, 520      | 151, 741      | 11, 066       |
| Texas .....                   | 103, 078      | 136, 000      | 36, 553       | 24, 100       | 18, 780       |
| Arkansas .....                | 5, 500        | 20, 000       |               | 9, 215        | 3, 300        |
| Oklahoma .....                |               |               |               |               | 100           |
| Indian Territory .....        |               |               |               |               | 335           |
| North Central Division:       |               |               |               |               |               |
| Ohio .....                    | 413, 189      | 644, 373      | 293, 594      | 543, 247      | 461, 629      |
| Indiana .....                 | 109, 950      | 66, 992       | 104, 292      | 49, 010       | 39, 019       |
| Illinois .....                | 141, 127      | 102, 289      | 2, 136, 043   | 1, 736, 742   | 999, 155      |
| Michigan .....                | 76, 493       | 249, 349      | 63, 466       | 193, 731      | 63, 700       |
| Wisconsin .....               | 205, 380      | 169, 260      | 116, 575      | 140, 837      | 140, 415      |
| Minnesota .....               | 143, 000      | 46, 117       | 25, 202       | 45, 442       | 31, 766       |
| Iowa .....                    | 772, 300      | 152, 973      | 103, 609      | 165, 975      | 191, 532      |
| Missouri .....                | 163, 965      | 266, 974      | 107, 861      | 323, 513      | 75, 945       |
| North Dakota .....            | 7, 040        | 28, 100       | 5, 800        | 9, 155        |               |
| South Dakota .....            | 28, 512       | 69, 922       | 118, 466      | 101, 757      | 75, 700       |
| Nebraska .....                | 66, 097       | 40, 419       | 32, 377       | 44, 840       | 14, 283       |
| Kansas .....                  | 99, 800       | 186, 836      | 103, 418      | 16, 000       | 17, 076       |
| Western Division:             |               |               |               |               |               |
| Montana .....                 |               | 300           | 22, 000       | 40, 000       |               |
| Colorado .....                | 171, 276      | 61, 547       | 103, 000      | 1, 800        | 41, 868       |
| Utah .....                    |               |               |               | 60, 000       | 61, 264       |
| Idaho .....                   |               |               |               | 5, 000        | 100           |
| Washington .....              | 8, 849        | 14, 500       | 18, 900       | 5, 624        | 12, 267       |
| Oregon .....                  | 3, 050        | 13, 710       | 10, 840       | 103, 400      | 22, 500       |
| California .....              | 70, 700       | 16, 600       | 44, 725       | 2, 637, 373   | 102, 885      |

TABLE 16.—*Income of universities and colleges from tuition fees from 1889-90 to 1894-95.*

| State or Territory.           | 1889-90.      | 1891-92.      | 1892-93.      | 1893-94.      | 1894-95.      |
|-------------------------------|---------------|---------------|---------------|---------------|---------------|
| United States .....           | \$3, 855, 984 | \$4, 820, 766 | \$5, 466, 810 | \$5, 856, 505 | \$6, 336, 635 |
| North Atlantic Division ..... | 1, 690, 836   | 2, 102, 608   | 2, 372, 798   | 2, 575, 005   | 2, 749, 469   |
| South Atlantic Division ..... | 364, 982      | 424, 330      | 484, 375      | 475, 646      | 534, 765      |
| South Central Division .....  | 419, 063      | 487, 943      | 491, 258      | 532, 871      | 568, 177      |
| North Central Division .....  | 1, 270, 495   | 1, 619, 732   | 1, 941, 246   | 2, 039, 011   | 2, 272, 436   |
| Western Division .....        | 110, 608      | 186, 153      | 177, 133      | 263, 972      | 211, 893      |
| North Atlantic Division:      |               |               |               |               |               |
| Maine .....                   | 30, 395       | 32, 009       | 42, 380       | 47, 881       | 43, 880       |
| New Hampshire .....           | a 17, 000     | 17, 635       | 18, 009       | 34, 091       | 34, 091       |
| Vermont .....                 | 5, 383        | 6, 975        | 10, 612       | 7, 632        | 10, 287       |
| Massachusetts .....           | 438, 931      | 557, 139      | 604, 429      | 660, 495      | 715, 044      |
| Rhode Island .....            | a 44, 000     | 44, 642       | 63, 250       | 59, 374       | 73, 075       |
| Connecticut .....             | 235, 821      | 233, 894      | 323, 872      | 437, 626      | 517, 194      |
| New York .....                | 542, 434      | 736, 162      | 733, 205      | 713, 748      | 715, 442      |
| New Jersey .....              | 41, 000       | 51, 000       | 50, 720       | 45, 610       | 70, 560       |
| Pennsylvania .....            | 332, 872      | 423, 652      | 526, 330      | 568, 548      | 569, 947      |
| South Atlantic Division:      |               |               |               |               |               |
| Delaware .....                | 369           | 0             | 0             | 0             | 1, 742        |
| Maryland .....                | 100, 222      | 136, 697      | 187, 460      | 157, 816      | 171, 598      |
| District of Columbia .....    | 77, 216       | 95, 473       | 94, 602       | 85, 000       | 118, 678      |
| Virginia .....                | 89, 540       | 70, 419       | 74, 272       | 94, 175       | 98, 899       |
| West Virginia .....           | 5, 500        | 6, 400        | 10, 538       | 9, 483        | 9, 788        |
| North Carolina .....          | 46, 454       | 51, 546       | 58, 553       | 60, 032       | 65, 656       |
| South Carolina .....          | 28, 369       | 24, 233       | 21, 354       | 19, 373       | 23, 313       |
| Georgia .....                 | 19, 060       | 27, 140       | 23, 416       | 31, 755       | 26, 520       |
| Florida .....                 | 7, 330        | 12, 117       | 14, 140       | 17, 962       | 18, 661       |
| South Central Division:       |               |               |               |               |               |
| Kentucky .....                | 70, 483       | 72, 294       | 67, 020       | 63, 429       | 74, 436       |
| Tennessee .....               | 151, 092      | 148, 599      | 157, 089      | 146, 518      | 149, 708      |
| Alabama .....                 | 22, 784       | 75, 850       | 72, 914       | 64, 965       | 70, 235       |
| Mississippi .....             | 22, 034       | 15, 794       | 21, 344       | 17, 000       | 29, 731       |
| Louisiana .....               | 76, 778       | 70, 047       | 77, 148       | 69, 131       | 68, 520       |
| Texas .....                   | 65, 856       | 87, 740       | 79, 476       | 125, 894      | 142, 307      |
| Arkansas .....                | 10, 031       | 17, 709       | 16, 200       | 39, 534       | 37, 400       |
| Oklahoma .....                |               |               | 67            | 700           | 1, 100        |
| Indian Territory .....        |               |               |               | 700           | 3, 750        |
| North Central Division:       |               |               |               |               |               |
| Ohio .....                    | 222, 273      | 255, 643      | 275, 785      | 308, 757      | 339, 786      |
| Indiana .....                 | 100, 154      | 108, 493      | 281, 182      | 230, 762      | 242, 057      |
| Illinois .....                | 213, 990      | 337, 501      | 428, 691      | 458, 488      | 584, 557      |
| Michigan .....                | 154, 053      | 190, 301      | 199, 704      | 172, 460      | 204, 129      |
| Wisconsin .....               | 61, 613       | 55, 660       | 54, 140       | 50, 613       | 91, 819       |
| Minnesota .....               | 41, 613       | 65, 151       | 72, 185       | 104, 321      | 110, 986      |
| Iowa .....                    | 136, 218      | 201, 996      | 196, 151      | 161, 137      | 177, 275      |
| Missouri .....                | 237, 905      | 289, 239      | 303, 439      | 308, 310      | 311, 609      |
| North Dakota .....            | 1, 860        | 3, 650        | 7, 450        | 2, 006        | 1, 793        |
| South Dakota .....            | 6, 500        | 14, 016       | 16, 810       | 22, 900       | 24, 900       |
| Nebraska .....                | 13, 204       | 24, 542       | 29, 511       | 58, 167       | 52, 916       |
| Kansas .....                  | 81, 172       | 73, 540       | 78, 198       | 131, 080      | 130, 609      |
| Western Division:             |               |               |               |               |               |
| Montana .....                 | 2, 874        | 7, 500        | 7, 500        | 5, 900        | 2, 500        |
| Wyoming .....                 |               | 366           | 293           | 255           | 253           |
| Colorado .....                | 3, 950        | 25, 981       | 20, 218       | 19, 709       | 19, 696       |
| New Mexico .....              | 1, 183        |               | 0             | 0             | 0             |
| Arizona .....                 |               | 145           | 0             | 0             | 0             |
| Utah .....                    | 5, 634        | 2, 585        | 1, 543        | 0             | 5, 677        |
| Nevada .....                  | 0             | 0             | 0             | 0             |               |
| Idaho .....                   |               |               | 0             | 0             | 43            |
| Washington .....              | 10, 400       | 21, 816       | 14, 800       | 22, 149       | 23, 041       |
| Oregon .....                  | 24, 727       | 12, 396       | 14, 296       | 33, 753       | 26, 538       |
| California .....              | 61, 835       | 115, 364      | 118, 483      | 182, 296      | 134, 060      |

a Estimated.

TABLE 17.—*Income of universities and colleges from productive funds from 1889-90 to 1894-95.*

| State or Territory.           | 1889-90.      | 1891-92.      | 1892-93.      | 1893-94.      | 1894-95.      |
|-------------------------------|---------------|---------------|---------------|---------------|---------------|
| United States .....           | \$4, 173, 083 | \$4, 888, 471 | \$5, 014, 859 | \$5, 251, 052 | \$5, 329, 001 |
| North Atlantic Division ..... | 2, 270, 398   | 2, 601, 779   | 2, 586, 337   | 2, 785, 588   | 2, 788, 189   |
| South Atlantic Division ..... | 265, 067      | 368, 118      | 378, 453      | 386, 956      | 384, 951      |
| South Central Division .....  | 397, 148      | 425, 604      | 444, 284      | 458, 852      | 424, 488      |
| North Central Division .....  | 1, 098, 529   | 1, 295, 912   | 1, 407, 577   | 1, 439, 945   | 1, 526, 361   |
| Western Division .....        | 141, 941      | 197, 058      | 198, 208      | 179, 711      | 205, 012      |
| North Atlantic Division:      |               |               |               |               |               |
| Maine .....                   | 64, 591       | 64, 849       | 59, 827       | 54, 939       | 67, 830       |
| New Hampshire .....           | a 55, 000     | 55, 421       | 60, 000       | 36, 960       | 36, 960       |
| Vermont .....                 | 22, 501       | 25, 023       | 32, 198       | 39, 294       | 34, 734       |
| Massachusetts .....           | 576, 304      | 695, 595      | 656, 548      | 743, 518      | 723, 712      |
| Rhode Island .....            | a 55, 000     | 57, 905       | 66, 334       | 67, 304       | 69, 876       |
| Connecticut .....             | 232, 682      | 240, 931      | 243, 975      | 275, 867      | 296, 606      |
| New York .....                | 860, 354      | 1, 053, 992   | 1, 058, 169   | 1, 100, 710   | 1, 027, 968   |
| New Jersey .....              | 139, 400      | 148, 000      | 150, 150      | 188, 000      | 205, 000      |
| Pennsylvania .....            | 264, 566      | 250, 063      | 259, 136      | 278, 996      | 325, 503      |
| South Atlantic Division:      |               |               |               |               |               |
| Delaware .....                | 4, 980        | 4, 980        | 4, 980        | 4, 980        | 4, 980        |
| Maryland .....                | 52, 250       | 120, 517      | 119, 700      | 120, 455      | 127, 202      |
| District of Columbia .....    | 25, 512       | 21, 426       | 21, 084       | 20, 394       | 17, 966       |
| Virginia .....                | 77, 116       | 91, 299       | 99, 071       | 99, 823       | 101, 818      |
| West Virginia .....           | 11, 409       | 11, 427       | 6, 389        | 6, 965        | 5, 388        |
| North Carolina .....          | 25, 271       | 32, 380       | 34, 537       | 39, 647       | 34, 802       |
| South Carolina .....          | 16, 580       | 24, 941       | 24, 525       | 32, 715       | 38, 390       |
| Georgia .....                 | 50, 949       | 54, 128       | 60, 132       | 51, 012       | 44, 395       |
| Florida .....                 | 1, 000        | 7, 020        | 8, 035        | 10, 965       | 10, 010       |
| South Central Division:       |               |               |               |               |               |
| Kentucky .....                | 67, 750       | 68, 065       | 67, 008       | 69, 967       | 68, 270       |
| Tennessee .....               | 121, 100      | 127, 375      | 127, 880      | 124, 912      | 130, 543      |
| Alabama .....                 | 25, 500       | 27, 000       | 27, 000       | 27, 100       | 28, 000       |
| Mississippi .....             | 33, 743       | 35, 540       | 42, 983       | 42, 243       | 42, 043       |
| Louisiana .....               | 105, 255      | 99, 400       | 108, 505      | 114, 358      | 105, 906      |
| Texas .....                   | 43, 800       | 66, 294       | 69, 378       | 77, 242       | 42, 396       |
| Arkansas .....                |               | 1, 930        | 1, 530        | 3, 030        | 2, 330        |
| Oklahoma .....                |               |               | 0             | 0             | 5, 000        |
| Indian Territory .....        |               |               |               | 0             | 0             |
| North Central Division:       |               |               |               |               |               |
| Ohio .....                    | 284, 904      | 345, 697      | 327, 880      | 360, 459      | 412, 803      |
| Indiana .....                 | 99, 253       | 97, 418       | 110, 182      | 105, 224      | 107, 775      |
| Illinois .....                | 203, 411      | 225, 156      | 335, 626      | 335, 068      | 372, 130      |
| Michigan .....                | 103, 724      | 114, 918      | 110, 959      | 98, 882       | 97, 896       |
| Wisconsin .....               | 63, 092       | 66, 770       | 70, 976       | 77, 310       | 74, 385       |
| Minnesota .....               | 63, 537       | 84, 855       | 80, 250       | 80, 996       | 71, 456       |
| Iowa .....                    | 81, 043       | 96, 558       | 92, 931       | 94, 476       | 89, 522       |
| Missouri .....                | 119, 938      | 169, 437      | 186, 505      | 181, 800      | 191, 830      |
| North Dakota .....            | 3, 000        | 1, 500        | 1, 500        | 0             | 0             |
| South Dakota .....            | 1, 000        | 3, 290        | 4, 300        | 4, 044        | 4, 000        |
| Nebraska .....                | 48, 710       | 58, 223       | 56, 868       | 70, 256       | 74, 794       |
| Kansas .....                  | 26, 917       | 32, 090       | 29, 600       | 31, 900       | 29, 770       |
| Western Division:             |               |               |               |               |               |
| Montana .....                 | 0             | 0             | 0             | 0             | 0             |
| Wyoming .....                 |               |               |               | 188           | 0             |
| Colorado .....                | 900           | 40, 000       | 21, 185       | 21, 186       | 24, 000       |
| New Mexico .....              | 0             | 0             | 0             | 0             | 0             |
| Arizona .....                 | 0             | 0             | 0             | 0             | 0             |
| Utah .....                    | 0             | 0             | 0             | 0             | 16, 800       |
| Nevada .....                  | 0             | 0             | 0             | 0             |               |
| Idaho .....                   |               |               | 1, 349        | 393           | 688           |
| Washington .....              | 1, 400        |               | 400           | 500           | 0             |
| Oregon .....                  | 14, 249       | 25, 608       | 28, 091       | 24, 180       | 25, 300       |
| California .....              | 125, 392      | 131, 450      | 147, 183      | 133, 264      | 138, 224      |

a Estimated.

TABLE 18.—*State and municipal appropriations to universities and colleges from 1889-90 to 1894-95.*

| State or Territory.           | 1889-90.      | 1891-92.      | 1892-93.      | 1893-94.      | 1894-95.      |
|-------------------------------|---------------|---------------|---------------|---------------|---------------|
| United States.....            | \$1, 383, 117 | \$2, 117, 939 | \$1, 784, 051 | \$2, 045, 302 | \$2, 252, 756 |
| North Atlantic Division ..... | 157, 518      | 207, 200      | 228, 945      | 239, 416      | 343, 049      |
| South Atlantic Division ..... | 153, 915      | 184, 837      | 162, 052      | 153, 612      | 152, 510      |
| South Central Division .....  | 31, 500       | 139, 056      | 26, 600       | 65, 275       | 69, 830       |
| North Central Division .....  | 868, 809      | 1, 325, 796   | 964, 656      | 1, 234, 947   | 1, 309, 236   |
| Western Division .....        | 171, 375      | 261, 050      | 381, 798      | 352, 052      | 378, 031      |
| North Atlantic Division:      |               |               |               |               |               |
| New Hampshire.....            | .....         | 0             | 0             | 7, 500        | 7, 500        |
| Vermont.....                  | 8, 400        | 8, 400        | 6, 000        | 8, 400        | 8, 400        |
| Connecticut.....              | 0             | 0             | .....         | 10            | 0             |
| New York.....                 | 149, 118      | 148, 800      | 151, 163      | 151, 006      | 151, 697      |
| Pennsylvania.....             | .....         | 50, 000       | 71, 782       | 72, 500       | 175, 452      |
| South Atlantic Division:      |               |               |               |               |               |
| Delaware.....                 | .....         | 25, 000       | .....         | 3, 000        | 3, 000        |
| Maryland.....                 | 14, 675       | 12, 500       | 17, 700       | 18, 500       | 18, 200       |
| Virginia.....                 | 40, 000       | 40, 000       | 40, 000       | 40, 000       | 55, 000       |
| West Virginia.....            | 25, 000       | 40, 000       | 49, 982       | 25, 700       | 20, 400       |
| North Carolina.....           | 20, 125       | 20, 000       | 20, 000       | 20, 000       | 20, 000       |
| South Carolina.....           | 53, 050       | 46, 670       | 33, 270       | 38, 190       | 27, 000       |
| Georgia.....                  | 1, 065        | 667           | 1, 100        | 4, 222        | 5, 910        |
| Florida.....                  | .....         | .....         | 0             | 4, 000        | 3, 000        |
| South Central Division:       |               |               |               |               |               |
| Kentucky.....                 | 400           | .....         | 0             | 0             | 0             |
| Tennessee.....                | 800           | 800           | 950           | 2, 460        | 16, 050       |
| Alabama.....                  | .....         | 1, 000        | 1, 200        | 1, 515        | 3, 400        |
| Mississippi.....              | 300           | 5, 700        | 400           | 8, 100        | 580           |
| Louisiana.....                | 17, 500       | 24, 556       | 13, 450       | 0             | 14, 800       |
| Texas.....                    | 12, 500       | 107, 000      | 5, 000        | 46, 200       | 25, 000       |
| Oklahoma.....                 | .....         | .....         | 5, 600        | 7, 000        | 10, 000       |
| North Central Division:       |               |               |               |               |               |
| Ohio.....                     | 126, 600      | 123, 685      | 152, 292      | 153, 850      | 168, 096      |
| Indiana.....                  | 23, 000       | 35, 000       | 40, 000       | 44, 000       | 40, 000       |
| Illinois.....                 | 46, 044       | 79, 611       | 63, 533       | 141, 882      | 148, 269      |
| Michigan.....                 | 194, 820      | 147, 700      | 181, 000      | 250, 000      | 231, 722      |
| Wisconsin.....                | 112, 570      | 196, 000      | 168, 000      | 276, 095      | 274, 150      |
| Minnesota.....                | 65, 000       | 85, 750       | 69, 500       | 69, 500       | 150, 800      |
| Iowa.....                     | 54, 000       | 90, 500       | 67, 000       | 67, 000       | 68, 354       |
| Missouri.....                 | 34, 400       | 350, 000      | 1, 331        | 14, 000       | 18, 495       |
| North Dakota.....             | 23, 400       | 30, 900       | 37, 000       | 36, 900       | 37, 000       |
| South Dakota.....             | 36, 850       | 25, 500       | 28, 500       | 28, 550       | 25, 950       |
| Nebraska.....                 | 80, 000       | 83, 650       | 70, 000       | 68, 170       | 60, 000       |
| Kansas.....                   | 72, 125       | 77, 500       | 86, 500       | 85, 000       | 86, 500       |
| Western Division:             |               |               |               |               |               |
| Wyoming.....                  | .....         | 4, 436        | 36, 559       | 3, 797        | 3, 250        |
| Colorado.....                 | .....         | 45, 000       | 70, 000       | 70, 000       | 60, 000       |
| New Mexico.....               | 0             | .....         | 12, 500       | 14, 000       | 14, 000       |
| Arizona.....                  | .....         | 25, 179       | 12, 000       | 7, 706        | 5, 500        |
| Utah.....                     | 28, 750       | 45, 000       | 45, 000       | 37, 500       | 30, 000       |
| Nevada.....                   | 28, 000       | 10, 000       | 25, 000       | 25, 000       | 15, 046       |
| Idaho.....                    | .....         | .....         | 15, 164       | 24, 412       | 5, 410        |
| Washington.....               | 5, 000        | 5, 000        | 25, 000       | 19, 500       | 95, 000       |
| Oregon.....                   | 11, 277       | 24, 000       | 25, 000       | 30, 000       | 30, 000       |
| California.....               | 98, 348       | 102, 435      | 115, 575      | 120, 137      | 119, 825      |



TABLE 19.—*Total income of universities and colleges from 1889-90 to 1894-95.*

| State or Territory.           | 1889-90.     | 1891-92.     | 1892-93.     | 1893-94.     | 1894-95.     |
|-------------------------------|--------------|--------------|--------------|--------------|--------------|
| United States.....            | \$10,972,918 | \$14,133,026 | \$14,601,034 | \$15,615,612 | \$16,733,638 |
| North Atlantic Division ..... | 4,670,944    | 5,636,237    | 5,861,597    | 6,447,531    | 6,776,594    |
| South Atlantic Division ..... | 920,806      | 1,286,890    | 1,408,195    | 1,308,318    | 1,461,421    |
| South Central Division .....  | 1,014,353    | 1,233,982    | 1,125,359    | 1,203,350    | 1,290,534    |
| North Central Division .....  | 3,844,189    | 4,890,267    | 5,012,169    | 5,429,270    | 5,979,378    |
| Western Division .....        | 522,626      | 1,085,650    | 1,193,714    | 1,227,143    | 1,275,711    |
| North Atlantic Division:      |              |              |              |              |              |
| Maine.....                    | 94,986       | 93,858       | 102,207      | 102,820      | 111,719      |
| New Hampshire.....            | a 72,000     | 73,056       | 96,000       | 90,138       | 90,138       |
| Vermont.....                  | 48,003       | 73,799       | 83,521       | 82,850       | 81,960       |
| Massachusetts.....            | 1,424,872    | 1,522,305    | 1,404,003    | 1,559,809    | 1,603,875    |
| Rhode Island.....             | a 90,000     | 103,235      | 132,529      | 202,678      | 144,319      |
| Connecticut.....              | 496,096      | 502,384      | 726,458      | 734,531      | 837,556      |
| New York.....                 | 1,738,757    | 2,120,480    | 2,129,264    | 2,306,360    | 2,298,975    |
| New Jersey.....               | 58,100       | 251,000      | 253,870      | 307,610      | 430,500      |
| Pennsylvania.....             | 639,130      | 893,120      | 933,745      | 1,000,735    | 1,207,543    |
| South Atlantic Division:      |              |              |              |              |              |
| Delaware.....                 | 7,140        | 60,256       | 21,488       | 24,451       | 25,722       |
| Maryland.....                 | 168,127      | 277,407      | 358,070      | 328,124      | 352,083      |
| District of Columbia.....     | 134,775      | 232,072      | 226,557      | 157,010      | 250,511      |
| Virginia.....                 | 222,431      | 230,437      | 279,835      | 297,775      | 323,294      |
| West Virginia.....            | 41,900       | 86,827       | 102,712      | 58,382       | 74,703       |
| North Carolina.....           | 111,049      | 128,396      | 147,252      | 144,503      | 167,309      |
| South Carolina.....           | 123,040      | 120,444      | 131,893      | 122,022      | 113,166      |
| Georgia.....                  | 92,514       | 130,814      | 114,937      | 129,649      | 116,015      |
| Florida.....                  | 19,821       | 29,237       | 25,401       | 46,402       | 38,618       |
| South Central Division:       |              |              |              |              |              |
| Kentucky.....                 | 140,966      | 143,159      | 137,185      | 145,545      | 157,262      |
| Tennessee.....                | 364,324      | 368,304      | 374,298      | 332,788      | 380,079      |
| Alabama.....                  | 82,524       | 106,150      | 102,114      | 101,595      | 106,625      |
| Mississippi.....              | 64,247       | 60,334       | 66,327       | 77,413       | 74,142       |
| Louisiana.....                | 500,883      | 252,138      | 246,240      | 200,190      | 264,700      |
| Texas.....                    | 139,223      | 274,267      | 165,693      | 277,985      | 235,741      |
| Arkansas.....                 | 13,181       | 20,630       | 27,530       | 55,064       | 43,430       |
| Oklahoma.....                 |              |              | 5,667        | 7,700        | 16,100       |
| Indian Territory.....         |              |              |              | 5,070        | 11,855       |
| North Central Division:       |              |              |              |              |              |
| Ohio.....                     | 738,344      | 839,546      | 868,545      | 974,295      | 1,027,222    |
| Indiana.....                  | 232,241      | 262,468      | 438,256      | 418,071      | 439,337      |
| Illinois.....                 | 628,013      | 804,233      | 1,037,253    | 1,081,185    | 1,498,143    |
| Michigan.....                 | 500,133      | 526,497      | 528,531      | 508,430      | 570,701      |
| Wisconsin.....                | 315,160      | 383,840      | 387,575      | 498,487      | 512,074      |
| Minnesota.....                | 228,749      | 307,201      | 293,411      | 340,270      | 415,722      |
| Iowa.....                     | 328,101      | 415,703      | 377,505      | 346,053      | 365,440      |
| Missouri.....                 | 399,213      | 855,076      | 535,934      | 542,472      | 563,826      |
| North Dakota.....             | 32,100       | 36,150       | 52,950       | 44,776       | 45,390       |
| South Dakota.....             | 52,035       | 47,826       | 54,685       | 64,027       | 56,050       |
| Nebraska.....                 | 145,546      | 215,906      | 214,466      | 248,730      | 222,536      |
| Kansas.....                   | 214,549      | 195,221      | 222,998      | 272,474      | 262,937      |
| Western Division:             |              |              |              |              |              |
| Montana.....                  | 10,238       | 7,500        | 7,500        | 5,900        | 5,500        |
| Wyoming.....                  |              | 36,802       | 59,174       | 23,240       | 24,661       |
| Colorado.....                 | 62,600       | 118,018      | 122,830      | 121,372      | 119,243      |
| New Mexico.....               | 2,688        |              | 12,500       | 14,000       | 14,000       |
| Arizona.....                  |              | 42,324       | 30,190       | 42,291       | 40,500       |
| Utah.....                     | 39,384       | 47,585       | 46,543       | 39,225       | 52,477       |
| Nevada.....                   | 28,000       | 42,000       | 59,000       | 44,000       | 50,046       |
| Idaho.....                    |              |              | 49,513       | 58,805       | 41,141       |
| Washington.....               | 16,800       | 31,716       | 44,900       | 54,839       | 150,612      |
| Oregon.....                   | 50,744       | 64,204       | 82,011       | 88,533       | 83,588       |
| California.....               | 312,772      | 695,501      | 679,553      | 734,938      | 693,943      |

a Estimated.

## II.—COLLEGES FOR WOMEN.

The statistics concerning colleges for women from the year 1890-91 to 1894-95, as reported to this office, are given on the following pages. An examination of these statistics will show that the figures vary considerably from year to year. This is especially noticeable in the number of institutions reported and included in this classification. It will be noticed that in 1890-91 the number of institutions included was 167,

while in 1891-92 the number was but 158, and in 1892-93 it was still further reduced to 142. This decrease in numbers may be traced to several causes, among which may be mentioned the following: (1) Each year a number of these institutions are either temporarily suspended or permanently closed. (2) Some institutions abandon collegiate work and devote themselves exclusively to secondary work. (3) In several cases institutions have become parts of the public-school systems of the cities or towns in which they are located.

It will be observed that the number of institutions was increased from 142 in 1892-93 to 166 in 1893-94, and again reduced to 163 in 1894-95.

In 1894 a circular letter was sent to all county superintendents of schools, asking them to furnish a list of all educational institutions in their respective counties. In this way a number of new institutions were added to the list of colleges for women, which accounts for the increase of institutions for the year 1893-94. During the scholastic year 1894-95 the office was informed of the suspension of 7 colleges for women. This decrease was counteracted in a measure by the establishment of new institutions, so that the net decrease for the year is but 3.

The average number of professors and instructors to each institution for the several years, as well as the number of students per institution, are given in the following tabular statements:

*Average number of instructors per institution.*

| Division.                    | 1890-91. | 1891-92. | 1892-93. | 1893-94. | 1894-95. |
|------------------------------|----------|----------|----------|----------|----------|
| United States .....          | 13       | 14       | 15       | 15       | 15       |
| North Atlantic Division..... | 24       | 25       | 26       | 26       | 23       |
| South Atlantic Division..... | 12       | 12       | 13       | 13       | 13       |
| South Central Division.....  | 10       | 10       | 11       | 12       | 11       |
| North Central Division.....  | 12       | 13       | 14       | 14       | 14       |
| Western Division.....        | 17       | 18       | 21       | 18       | 18       |

*Average number of students per institution.*

| Division.                    | 1890-91. | 1891-92. | 1892-93. | 1893-94. | 1894-95. |
|------------------------------|----------|----------|----------|----------|----------|
| United States .....          | 150      | 156      | 160      | 143      | 148      |
| North Atlantic Division..... | 202      | 222      | 229      | 213      | 246      |
| South Atlantic Division..... | 141      | 145      | 152      | 133      | 138      |
| South Central Division.....  | 153      | 153      | 146      | 133      | 135      |
| North Central Division.....  | 116      | 130      | 141      | 122      | 120      |
| Western Division.....        | 109      | 107      | 104      | 95       | 84       |

*Average number of college students per institution.*

| Division.                    | 1890-91. | 1891-92. | 1892-93. | 1893-94. | 1894-95. |
|------------------------------|----------|----------|----------|----------|----------|
| United States .....          | 72       | 78       | 85       | 83       | 86       |
| North Atlantic Division..... | 103      | 124      | 150      | 151      | 166      |
| South Atlantic Division..... | 73       | 80       | 90       | 82       | 92       |
| South Central Division.....  | 72       | 79       | 68       | 71       | 66       |
| North Central Division.....  | 47       | 44       | 50       | 59       | 59       |
| Western Division.....        | 10       | 9        | 14       | 11       | 7        |

From these tabular statements it is observed that the North Atlantic Division has the largest average number of students per institution as well as the largest average number of professors and instructors. These averages have been increasing gradually during the past five years. In all the other divisions the average number of students has varied from year to year.

Some of the institutions of this class do not possess libraries of their own, the deficiency in this respect being covered in a measure by the private libraries owned by the presidents or principals of the several institutions. The average number of volumes in the libraries of the institutions in the several geographical divisions was as follows:

*Average number of volumes in libraries.*

| Division.                     | 1890-91. | 1891-92. | 1892-93. | 1893-94. | 1894-95. |
|-------------------------------|----------|----------|----------|----------|----------|
| United States .....           | 1,935    | 2,146    | 2,369    | 2,300    | 2,690    |
| North Atlantic Division ..... | 6,054    | 6,113    | 6,529    | 6,647    | 7,498    |
| South Atlantic Division ..... | 933      | 1,144    | 1,104    | 1,200    | 1,536    |
| South Central Division .....  | 1,078    | 925      | 1,175    | 1,130    | 1,227    |
| North Central Division .....  | 1,571    | 2,649    | 2,680    | 2,527    | 3,417    |
| Western Division .....        | 3,333    | 3,500    | 3,833    | 3,333    | 3,500    |

The above remarks concerning libraries apply also to scientific apparatus. The value of apparatus per institution in the several geographical divisions for the years 1891-92 to 1894-95 was as follows:

*Value of scientific apparatus per institution.*

| Division.                     | 1891-92. | 1892-93. | 1893-94. | 1894-95. |
|-------------------------------|----------|----------|----------|----------|
| United States .....           | \$3,708  | \$5,107  | \$5,501  | \$6,075  |
| North Atlantic Division ..... | 17,197   | 19,106   | 20,596   | 24,730   |
| South Atlantic Division ..... | 1,614    | 1,137    | 2,039    | 2,228    |
| South Central Division .....  | 952      | 1,145    | 1,314    | 1,307    |
| North Central Division .....  | 951      | 5,740    | 5,741    | 6,024    |
| Western Division .....        | 5,333    | 8,333    | 10,500   | 10,500   |

The value of grounds and buildings increased from \$12,586,869 in 1891-92 to \$14,929,696 in 1894-95. The value per institution during the several years was as follows:

*Value of grounds and buildings per institution.*

| Division.                     | 1891-92. | 1892-93. | 1893-94. | 1894-95. |
|-------------------------------|----------|----------|----------|----------|
| United States .....           | \$79,664 | \$92,039 | \$86,798 | \$91,593 |
| North Atlantic Division ..... | 204,525  | 216,920  | 222,415  | 231,237  |
| South Atlantic Division ..... | 55,494   | 72,498   | 64,856   | 74,610   |
| South Central Division .....  | 41,172   | 43,502   | 43,717   | 41,563   |
| North Central Division .....  | 78,337   | 82,542   | 75,931   | 90,633   |
| Western Division .....        | 158,407  | 216,000  | 201,000  | 201,000  |

The endowment funds of colleges for women were increased from \$3,954,489 in 1891-92 to \$5,172,767 in 1894-95, and the total income increased in the same period from \$2,778,588 to \$3,441,158.

The principal statistics concerning colleges for women are given, by States, in the following tables:

TABLE 1.—*Number of colleges for women and the number of professors and instructors reported from 1890-91 to 1894-95.*

| State.                     | Institutions. |          |          |          |          | Professors and instructors. |         |          |         |          |         |          |         |          |         |
|----------------------------|---------------|----------|----------|----------|----------|-----------------------------|---------|----------|---------|----------|---------|----------|---------|----------|---------|
|                            | 1890-91.      | 1891-92. | 1892-93. | 1893-94. | 1894-95. | 1890-91.                    |         | 1891-92. |         | 1892-93. |         | 1893-94. |         | 1894-95. |         |
|                            |               |          |          |          |          | Male.                       | Female. | Male.    | Female. | Male.    | Female. | Male.    | Female. | Male.    | Female. |
| United States .....        | 167           | 158      | 142      | 166      | 163      | 574                         | 1,661   | 552      | 1,633   | 539      | 1,558   | 651      | 1,809   | 623      | 1,802   |
| North Atlantic Division... | 26            | 24       | 24       | 26       | 24       | 230                         | 382     | 226      | 363     | 223      | 402     | 250      | 424     | 247      | 422     |
| South Atlantic Division... | 50            | 49       | 44       | 52       | 50       | 158                         | 449     | 137      | 461     | 158      | 417     | 164      | 490     | 161      | 494     |
| South Central Division...  | 59            | 53       | 47       | 56       | 56       | 107                         | 500     | 102      | 452     | 81       | 419     | 139      | 524     | 124      | 500     |
| North Central Division...  | 29            | 29       | 24       | 29       | 30       | 74                          | 284     | 82       | 309     | 71       | 262     | 90       | 326     | 83       | 340     |
| Western Division .....     | 3             | 3        | 3        | 3        | 3        | 5                           | 46      | 5        | 48      | 6        | 58      | 8        | 45      | 8        | 46      |
| North Atlantic Division:   |               |          |          |          |          |                             |         |          |         |          |         |          |         |          |         |
| Maine .....                | 2             | 2        | 2        | 2        | 2        | 13                          | 9       | 11       | 10      | 10       | 13      | 11       | 13      | 11       | 12      |
| New Hampshire .....        | 1             | 1        | 1        | 1        | 1        | 4                           | 5       | 4        | 8       | 4        | 8       | 4        | 9       | 5        | 7       |
| Massachusetts .....        | 5             | 5        | 5        | 5        | 5        | 98                          | 150     | 101      | 144     | 108      | 146     | 118      | 157     | 116      | 158     |
| Connecticut .....          | 1             |          |          |          |          |                             |         |          |         |          |         |          |         |          |         |
| New York .....             | 7             | 6        | 6        | 6        | 5        | 49                          | 117     | 44       | 96      | 51       | 111     | 51       | 117     | 47       | 112     |
| New Jersey .....           | 2             | 2        | 2        | 2        | 1        | 29                          | 13      | 20       | 12      | 16       | 22      | 16       | 16      | 16       | 6       |
| Pennsylvania .....         | 8             | 8        | 8        | 10       | 10       | 37                          | 88      | 46       | 93      | 34       | 102     | 50       | 112     | 52       | 127     |
| South Atlantic Division:   |               |          |          |          |          |                             |         |          |         |          |         |          |         |          |         |
| Maryland .....             | 3             | 3        | 4        | 4        | 4        | 20                          | 32      | 22       | 37      | 28       | 47      | 25       | 47      | 25       | 47      |
| Virginia .....             | 17            | 15       | 14       | 18       | 17       | 56                          | 166     | 44       | 145     | 39       | 137     | 61       | 157     | 56       | 162     |
| West Virginia .....        | 1             | 1        | 1        | 1        | 1        | 1                           | 2       | 1        | 2       | 0        | 2       | 0        | 3       | 0        | 3       |
| North Carolina .....       | 12            | 11       | 8        | 9        | 8        | 28                          | 98      | 25       | 99      | 25       | 67      | 20       | 85      | 17       | 81      |
| South Carolina .....       | 7             | 7        | 7        | 9        | 9        | 21                          | 53      | 19       | 62      | 38       | 61      | 25       | 86      | 29       | 89      |
| Georgia .....              | 10            | 12       | 10       | 11       | 11       | 32                          | 98      | 26       | 116     | 28       | 103     | 33       | 112     | 34       | 112     |
| South Central Division:    |               |          |          |          |          |                             |         |          |         |          |         |          |         |          |         |
| Kentucky .....             | 18            | 15       | 12       | 14       | 12       | 31                          | 153     | 29       | 127     | 20       | 100     | 30       | 122     | 27       | 101     |
| Tennessee .....            | 16            | 15       | 13       | 15       | 15       | 34                          | 145     | 36       | 129     | 32       | 136     | 44       | 179     | 42       | 173     |
| Alabama .....              | 8             | 8        | 6        | 9        | 11       | 9                           | 69      | 9        | 85      | 5        | 74      | 25       | 93      | 20       | 95      |
| Mississippi .....          | 12            | 11       | 10       | 11       | 11       | 20                          | 86      | 17       | 81      | 10       | 67      | 22       | 80      | 24       | 82      |
| Louisiana .....            | 2             | 2        | 2        | 3        | 3        | 4                           | 13      | 5        | 9       | 4        | 10      | 7        | 19      | 6        | 27      |
| Texas .....                | 3             | 2        | 4        | 3        | 3        | 9                           | 34      | 6        | 21      | 10       | 32      | 9        | 27      | 4        | 27      |
| Arkansas .....             |               |          |          | 1        | 1        |                             |         |          |         |          |         | 2        | 4       | 1        | 5       |
| North Central Division:    |               |          |          |          |          |                             |         |          |         |          |         |          |         |          |         |
| Ohio .....                 | 8             | 8        | 8        | 7        | 8        | 22                          | 86      | 28       | 99      | 30       | 97      | 33       | 88      | 26       | 111     |
| Indiana .....              |               |          |          | 1        | 1        |                             |         |          |         |          |         | 2        | 16      | 2        | 14      |
| Illinois .....             | 5             | 5        | 4        | 5        | 5        | 13                          | 66      | 15       | 68      | 15       | 54      | 10       | 73      | 13       | 64      |
| Wisconsin .....            | 2             | 2        | 1        | 2        | 2        | 4                           | 12      | 4        | 14      | 0        | 7       | 3        | 15      | 1        | 19      |
| Minnesota .....            | 1             | 1        | 1        | 1        | 1        | 1                           | 8       | 1        | 7       | 2        | 6       | 3        | 6       | 1        | 6       |
| Missouri .....             | 11            | 11       | 8        | 11       | 11       | 34                          | 89      | 32       | 97      | 23       | 72      | 36       | 109     | 36       | 105     |
| Kansas .....               | 2             | 2        | 2        | 2        | 2        | 0                           | 23      | 2        | 24      | 1        | 26      | 3        | 19      | 4        | 21      |
| Western Division:          |               |          |          |          |          |                             |         |          |         |          |         |          |         |          |         |
| California .....           | 3             | 3        | 3        | 3        | 3        | 5                           | 46      | 5        | 48      | 6        | 58      | 8        | 45      | 8        | 46      |



TABLE 2.—*Preparatory and collegiate students in colleges for women from 1890-91 to 1894-95.*

| State.                       | Preparatory students. |          |          |          |          | Collegiate students. |          |          |          |          |
|------------------------------|-----------------------|----------|----------|----------|----------|----------------------|----------|----------|----------|----------|
|                              | 1890-91.              | 1891-92. | 1892-93. | 1893-94. | 1894-95. | 1890-91.             | 1891-92. | 1892-93. | 1893-94. | 1894-95. |
| United States.....           | 6,840                 | 6,891    | 6,045    | 4,798    | 4,874    | 11,979               | 12,358   | 12,004   | 13,858   | 14,049   |
| North Atlantic Division..... | 1,589                 | 1,493    | 1,334    | 989      | 1,168    | 2,669                | 2,978    | 3,603    | 3,916    | 3,980    |
| South Atlantic Division..... | 1,634                 | 1,906    | 1,403    | 994      | 1,075    | 3,671                | 3,919    | 3,980    | 4,246    | 4,620    |
| South Central Division.....  | 2,504                 | 1,940    | 1,834    | 1,709    | 1,464    | 4,242                | 4,164    | 3,185    | 3,952    | 3,671    |
| North Central Division.....  | 860                   | 1,293    | 1,357    | 1,032    | 1,108    | 1,366                | 1,270    | 1,193    | 1,712    | 1,756    |
| Western Division.....        | 262                   | 259      | 117      | 74       | 59       | 31                   | 27       | 43       | 32       | 22       |
| North Atlantic Division:     |                       |          |          |          |          |                      |          |          |          |          |
| Maine.....                   | 390                   | 429      | 393      | 90       | 222      | 95                   | 16       | 26       | 17       | 49       |
| New Hampshire.....           |                       | 144      |          | 30       | 90       |                      | 21       |          | 45       | 15       |
| Massachusetts.....           | 16                    | 19       | 8        | 13       | 8        | 1,491                | 1,763    | 1,980    | 2,181    | 2,280    |
| Connecticut.....             | 79                    |          |          |          |          | 14                   |          |          |          |          |
| New York.....                | 800                   | 650      | 621      | 617      | 592      | 639                  | 692      | 915      | 932      | 836      |
| New Jersey.....              | 54                    | 43       | 29       | 26       | 15       | 22                   | 23       | 47       | 18       | 20       |
| Pennsylvania.....            | 241                   | 208      | 283      | 213      | 241      | 408                  | 463      | 635      | 723      | 780      |
| South Atlantic Division:     |                       |          |          |          |          |                      |          |          |          |          |
| Maryland.....                | 307                   | 387      | 58       | 14       | 15       | 244                  | 170      | 256      | 324      | 457      |
| Virginia.....                | 413                   | 717      | 469      | 300      | 413      | 1,150                | 760      | 1,175    | 1,226    | 1,148    |
| West Virginia.....           |                       |          | 17       |          | 17       |                      |          | 3        |          |          |
| North Carolina.....          | 329                   | 305      | 267      | 235      | 206      | 554                  | 744      | 483      | 523      | 716      |
| South Carolina.....          | 207                   | 187      | 308      | 207      | 174      | 670                  | 742      | 758      | 805      | 934      |
| Georgia.....                 | 378                   | 310      | 284      | 233      | 250      | 1,053                | 1,503    | 1,305    | 1,368    | 1,365    |
| South Central Division:      |                       |          |          |          |          |                      |          |          |          |          |
| Kentucky.....                | 712                   | 496      | 522      | 357      | 279      | 1,109                | 1,047    | 852      | 1,046    | 529      |
| Tennessee.....               | 631                   | 440      | 421      | 498      | 414      | 1,161                | 1,315    | 1,027    | 1,146    | 1,143    |
| Alabama.....                 | 251                   | 273      | 206      | 209      | 274      | 758                  | 798      | 508      | 582      | 916      |
| Mississippi.....             | 570                   | 435      | 494      | 386      | 295      | 795                  | 712      | 415      | 684      | 657      |
| Louisiana.....               | 68                    | 114      | 51       | 128      | 145      | 138                  | 117      | 17       | 163      | 163      |
| Texas.....                   | 272                   | 182      | 140      | 95       | 57       | 281                  | 175      | 366      | 311      | 263      |
| Arkansas.....                |                       |          |          | 36       |          |                      |          |          | 20       |          |
| North Central Division:      |                       |          |          |          |          |                      |          |          |          |          |
| Ohio.....                    | 133                   | 399      | 230      | 240      | 343      | 319                  | 238      | 394      | 574      | 678      |
| Indiana.....                 |                       |          |          | 95       | 70       |                      |          |          | 25       | 30       |
| Illinois.....                | 266                   | 309      | 396      | 325      | 201      | 103                  | 122      | 137      | 269      | 217      |
| Wisconsin.....               | 110                   | 145      | 35       | 32       | 97       | 45                   | 24       | 14       | 10       | 31       |
| Minnesota.....               | 24                    | 31       | 44       | 42       | 40       | 21                   | 16       | 10       | 21       | 10       |
| Missouri.....                | 301                   | 267      | 545      | 229      | 256      | 701                  | 735      | 514      | 702      | 715      |
| Kansas.....                  | 26                    | 142      | 107      | 69       | 101      | 117                  | 135      | 124      | 111      | 75       |
| Western Division:            |                       |          |          |          |          |                      |          |          |          |          |
| California.....              | 262                   | 259      | 117      | 74       | 59       | 31                   | 27       | 43       | 32       | 22       |

TABLE 3.—Number of graduate students and total number of students in colleges for women from 1890-91 to 1894-95.

| State.                       | Graduate students. |          |          |          |          | Total number of students. |          |          |          |          |
|------------------------------|--------------------|----------|----------|----------|----------|---------------------------|----------|----------|----------|----------|
|                              | 1890-91.           | 1891-92. | 1892-93. | 1893-94. | 1894-95. | 1890-91.                  | 1891-92. | 1892-93. | 1893-94. | 1894-95. |
| United States.....           | 138                | 156      | 222      | 269      | 301      | 25,024                    | 24,611   | 22,756   | 23,707   | 24,153   |
| North Atlantic Division..... | 54                 | 87       | 102      | 124      | 153      | 5,265                     | 5,331    | 5,493    | 5,538    | 5,901    |
| South Atlantic Division..... | 38                 | 24       | 53       | 55       | 57       | 7,040                     | 7,112    | 6,708    | 6,922    | 6,836    |
| South Central Division.....  | 30                 | 32       | 51       | 76       | 66       | 9,024                     | 8,086    | 6,861    | 7,436    | 7,582    |
| North Central Division.....  | 13                 | 11       | 13       | 13       | 22       | 3,367                     | 3,762    | 3,383    | 3,525    | 3,611    |
| Western Division.....        | 3                  | 2        | 3        | 1        | 3        | 328                       | 320      | 311      | 286      | 253      |
| North Atlantic Division:     |                    |          |          |          |          |                           |          |          |          |          |
| Maine.....                   |                    |          |          | 1        | 1        | 485                       | 445      | 419      | 117      | 313      |
| New Hampshire.....           |                    | 1        |          |          |          | 130                       | 166      | 273      | 273      | 182      |
| Massachusetts.....           | 15                 | 39       | 39       | 33       | 58       | 1,879                     | 2,043    | 2,133    | 2,232    | 2,346    |
| Connecticut.....             |                    |          |          |          |          | 160                       |          |          |          |          |
| New York.....                | 27                 | 18       | 15       | 26       | 34       | 1,653                     | 1,545    | 1,595    | 1,615    | 1,634    |
| New Jersey.....              |                    |          |          |          |          | 72                        | 66       | 84       | 53       | 35       |
| Pennsylvania.....            | 12                 | 29       | 48       | 59       | 60       | 886                       | 1,066    | 989      | 1,248    | 1,391    |
| South Atlantic Division:     |                    |          |          |          |          |                           |          |          |          |          |
| Maryland.....                | 5                  | 9        | 11       | 6        | 6        | 569                       | 566      | 628      | 606      | 566      |
| Virginia.....                | 15                 | 11       | 17       | 8        | 13       | 2,212                     | 1,911    | 1,869    | 1,945    | 1,928    |
| West Virginia.....           |                    |          |          |          |          | 35                        | 35       | 40       | 35       | 35       |
| North Carolina.....          | 1                  |          |          |          | 6        | 1,427                     | 1,379    | 979      | 1,065    | 1,216    |
| South Carolina.....          | 3                  | 3        | 22       | 14       | 12       | 1,050                     | 1,083    | 1,169    | 1,223    | 1,189    |
| Georgia.....                 | 14                 | 1        | 3        | 27       | 20       | 1,747                     | 2,138    | 2,023    | 2,048    | 1,962    |
| South Central Division:      |                    |          |          |          |          |                           |          |          |          |          |
| Kentucky.....                | 3                  | 2        | 18       | 7        | 11       | 2,530                     | 2,103    | 1,736    | 1,856    | 1,434    |
| Tennessee.....               | 15                 | 9        | 1        | 36       | 34       | 2,740                     | 2,486    | 2,071    | 2,369    | 2,442    |
| Alabama.....                 | 9                  | 13       | 16       | 14       | 17       | 1,302                     | 1,306    | 850      | 1,080    | 1,390    |
| Mississippi.....             |                    | 5        | 16       | 15       | 2        | 1,632                     | 1,472    | 1,253    | 1,196    | 1,349    |
| Louisiana.....               |                    |          |          | 1        |          | 226                       | 319      | 310      | 393      | 394      |
| Texas.....                   | 3                  | 3        |          | 3        | 2        | 594                       | 400      | 636      | 446      | 426      |
| Arkansas.....                |                    |          |          |          | 0        |                           |          |          | 105      | 97       |
| North Central Division:      |                    |          |          |          |          |                           |          |          |          |          |
| Ohio.....                    | 5                  | 3        | 8        | 4        | 8        | 909                       | 945      | 1,089    | 932      | 1,131    |
| Indiana.....                 |                    |          |          |          |          |                           |          |          | 120      | 100      |
| Illinois.....                | 1                  | 1        |          | 2        | 2        | 705                       | 847      | 723      | 809      | 678      |
| Wisconsin.....               |                    |          |          |          | 0        | 155                       | 169      | 49       | 130      | 135      |
| Minnesota.....               |                    | 1        |          |          |          | 45                        | 48       | 54       | 63       | 52       |
| Missouri.....                | 7                  | 6        | 5        | 7        | 12       | 1,321                     | 1,453    | 1,194    | 1,206    | 1,216    |
| Kansas.....                  |                    |          |          |          |          | 232                       | 300      | 274      | 265      | 299      |
| Western Division:            |                    |          |          |          |          |                           |          |          |          |          |
| California.....              | 3                  | 2        | 3        | 1        | 3        | 328                       | 320      | 311      | 286      | 253      |

TABLE 4.—*Number of volumes in libraries of colleges for women from 1890-91 to 1894-95.*

| State.                        | 1890-91. | 1891-92. | 1892-93. | 1893-94. | 1894-95. |
|-------------------------------|----------|----------|----------|----------|----------|
| United States .....           | 323, 183 | 339, 138 | 336, 339 | 381, 745 | 438, 433 |
| North Atlantic Division ..... | 157, 402 | 146, 716 | 150, 705 | 172, 823 | 179, 948 |
| South Atlantic Division ..... | 46, 643  | 56, 044  | 48, 589  | 62, 387  | 76, 790  |
| South Central Division .....  | 63, 588  | 49, 053  | 55, 233  | 63, 257  | 68, 696  |
| North Central Division .....  | 45, 550  | 76, 825  | 64, 312  | 73, 278  | 102, 499 |
| Western Division .....        | 10, 000  | 10, 500  | 11, 500  | 10, 000  | 10, 500  |
| North Atlantic Division:      |          |          |          |          |          |
| Maine .....                   | 7, 200   | 9, 000   | 9, 000   | 10, 000  | 10, 500  |
| New Hampshire .....           | 2, 000   | 2, 000   | 2, 000   | 2, 000   | 2, 500   |
| Massachusetts .....           | 63, 673  | 68, 350  | 72, 500  | 74, 937  | 77, 800  |
| Connecticut .....             | 1, 000   |          |          |          |          |
| New York .....                | 56, 659  | 34, 766  | 32, 044  | 36, 686  | 38, 324  |
| New Jersey .....              | 1, 000   | 1, 000   | 3, 761   | 4, 000   | 2, 000   |
| Pennsylvania .....            | 25, 870  | 31, 600  | 37, 400  | 45, 200  | 48, 824  |
| South Atlantic Division:      |          |          |          |          |          |
| Maryland .....                | 2, 200   | 4, 500   | 7, 055   | 10, 555  | 13, 690  |
| Virginia .....                | 18, 200  | 14, 900  | 9, 260   | 14, 062  | 23, 100  |
| West Virginia .....           |          |          | 300      | 300      | 650      |
| North Carolina .....          | 8, 725   | 13, 420  | 8, 450   | 9, 720   | 11, 450  |
| South Carolina .....          | 4, 750   | 5, 450   | 8, 082   | 8, 900   | 8, 800   |
| Georgia .....                 | 12, 768  | 17, 774  | 15, 442  | 18, 850  | 19, 100  |
| South Central Division:       |          |          |          |          |          |
| Kentucky .....                | 13, 050  | 12, 750  | 15, 600  | 13, 200  | 11, 390  |
| Tennessee .....               | 10, 840  | 13, 180  | 14, 500  | 20, 300  | 25, 905  |
| Alabama .....                 | 14, 498  | 10, 739  | 11, 633  | 14, 032  | 15, 416  |
| Mississippi .....             | 8, 600   | 8, 084   | 9, 300   | 7, 000   | 8, 900   |
| Louisiana .....               | 2, 200   | 2, 000   | 800      | 4, 500   | 4, 500   |
| Texas .....                   | 14, 400  | 2, 300   | 3, 400   | 4, 100   | 2, 500   |
| Arkansas .....                |          |          |          | 125      | 85       |
| North Central Division:       |          |          |          |          |          |
| Ohio .....                    | 12, 200  | 40, 600  | 36, 100  | 38, 200  | 68, 600  |
| Indiana .....                 |          |          |          | 2, 000   | 2, 000   |
| Illinois .....                | 15, 997  | 15, 100  | 9, 800   | 13, 490  | 13, 140  |
| Wisconsin .....               | 5, 000   | 5, 000   | 2, 000   | 4, 638   | 4, 834   |
| Minnesota .....               | 1, 028   | 1, 500   | 1, 500   | 1, 500   | 1, 500   |
| Missouri .....                | 9, 825   | 12, 125  | 10, 412  | 10, 250  | 10, 225  |
| Kansas .....                  | 1, 500   | 2, 500   | 4, 500   | 3, 200   | 2, 200   |
| Western Division:             |          |          |          |          |          |
| California .....              | 10, 000  | 10, 500  | 11, 500  | 10, 000  | 10, 500  |

TABLE 5.—*Value of scientific apparatus and libraries of colleges for women from 1891-92 to 1894-95.*

| State.                       | 1891-92.   | 1892-93.   | 1893-94.   | 1894-95.   |
|------------------------------|------------|------------|------------|------------|
| United States.....           | \$585, 868 | \$725, 120 | \$913, 108 | \$990, 294 |
| North Atlantic Division..... | 412, 728   | 458, 548   | 535, 486   | 593, 519   |
| South Atlantic Division..... | 79, 100    | 50, 022    | 106, 050   | 111, 375   |
| South Central Division.....  | 50, 450    | 53, 800    | 73, 577    | 73, 175    |
| North Central Division.....  | 27, 590    | 137, 750   | 168, 495   | 180, 725   |
| Western Division.....        | 16, 000    | 25, 000    | 31, 500    | 31, 500    |
| North Atlantic Division:     |            |            |            |            |
| Maine.....                   | 4, 000     | 14, 000    | 9, 000     | 17, 325    |
| New Hampshire.....           |            | 6, 000     | 6, 000     | 6, 000     |
| Massachusetts.....           | 165, 908   | 171, 062   | 210, 562   | 258, 000   |
| New York.....                | 187, 570   | 201, 986   | 209, 424   | 224, 094   |
| New Jersey.....              |            | 2, 000     |            |            |
| Pennsylvania.....            | 55, 250    | 63, 500    | 100, 500   | 88, 100    |
| South Atlantic Division:     |            |            |            |            |
| Maryland.....                | 18, 000    | 8, 500     | 46, 000    | 52, 500    |
| Virginia.....                | 26, 025    | 9, 000     | 16, 400    | 11, 600    |
| North Carolina.....          | 7, 550     | 3, 400     | 7, 350     | 9, 200     |
| South Carolina.....          | 7, 600     | 10, 500    | 11, 200    | 10, 975    |
| Georgia.....                 | 19, 925    | 18, 622    | 25, 100    | 27, 100    |
| South Central Division:      |            |            |            |            |
| Kentucky.....                | 12, 950    | 8, 750     | 16, 050    | 11, 100    |
| Tennessee.....               | 9, 950     | 14, 000    | 16, 125    | 24, 200    |
| Alabama.....                 | 12, 150    | 9, 850     | 18, 802    | 18, 775    |
| Mississippi.....             | 12, 900    | 13, 550    | 11, 400    | 12, 800    |
| Louisiana.....               | 1, 900     | 150        | 3, 000     | 3, 500     |
| Texas.....                   | 600        | 7, 500     | 7, 450     | 2, 800     |
| Arkansas.....                |            |            | 750        | 0          |
| North Central Division:      |            |            |            |            |
| Ohio.....                    | 12, 500    | 7, 000     | 18, 000    | 127, 200   |
| Indiana.....                 |            |            | 2, 000     | 2, 500     |
| Illinois.....                | 2, 500     | 106, 300   | 105, 500   | 19, 800    |
| Wisconsin.....               | 5, 000     | 2, 000     | 9, 500     | 9, 600     |
| Minnesota.....               | 1, 000     | 2, 000     | 4, 000     | 5, 000     |
| Missouri.....                | 5, 590     | 9, 850     | 26, 295    | 11, 625    |
| Kansas.....                  | 1, 000     | 10, 600    | 1, 200     | 5, 000     |
| Western Division:            |            |            |            |            |
| California.....              | 16, 000    | 25, 000    | 31, 500    | 31, 500    |



TABLE 6.—*Value of grounds and buildings of colleges for women from 1891-92 to 1894-95.*

| State.                       | 1891-92.     | 1892-93.     | 1893-94.     | 1894-95.     |
|------------------------------|--------------|--------------|--------------|--------------|
| United States.....           | \$12,586,869 | \$13,069,581 | \$14,408,430 | \$14,929,666 |
| North Atlantic Division..... | 4,908,589    | 5,206,081    | 5,782,790    | 5,549,666    |
| South Atlantic Division..... | 2,719,200    | 3,189,900    | 3,372,500    | 3,730,500    |
| South Central Division.....  | 2,182,100    | 2,044,000    | 2,448,140    | 2,327,500    |
| North Central Division.....  | 2,301,760    | 1,981,000    | 2,202,000    | 2,719,000    |
| Western Division.....        | 475,220      | 648,000      | 603,000      | 603,000      |
| North Atlantic Division:     |              |              |              |              |
| Maine.....                   | 207,000      | 207,000      | 250,000      | 228,650      |
| New Hampshire.....           | 100,000      | 75,000       | 75,000       | 78,200       |
| Massachusetts.....           | 2,016,619    | 2,098,638    | 2,278,136    | 2,306,537    |
| New York.....                | 1,284,970    | 1,459,443    | 1,340,654    | 1,263,309    |
| New Jersey.....              | 300,000      | 35,000       | 40,000       | 25,000       |
| Pennsylvania.....            | 1,000,000    | 1,331,000    | 1,799,000    | 1,650,000    |
| South Atlantic Division:     |              |              |              |              |
| Maryland.....                | 490,000      | 570,000      | 757,000      | 863,000      |
| Virginia.....                | 755,000      | 1,135,000    | 990,000      | 1,037,000    |
| West Virginia.....           | 8,000        | 8,000        | 8,000        | 8,500        |
| North Carolina.....          | 483,000      | 403,000      | 480,000      | 530,000      |
| South Carolina.....          | 210,000      | 315,000      | 303,000      | 358,000      |
| Georgia.....                 | 773,200      | 758,000      | 829,500      | 934,000      |
| South Central Division:      |              |              |              |              |
| Kentucky.....                | 529,000      | 300,000      | 483,000      | 400,500      |
| Tennessee.....               | 608,000      | 608,000      | 768,000      | 785,000      |
| Alabama.....                 | 527,000      | 488,000      | 459,640      | 430,000      |
| Mississippi.....             | 328,160      | 304,000      | 342,000      | 382,000      |
| Louisiana.....               | 50,000       | 50,000       | 105,000      | 90,000       |
| Texas.....                   | 140,000      | 294,000      | 263,000      | 215,000      |
| Arkansas.....                |              |              | 27,500       | 25,000       |
| North Central Division:      |              |              |              |              |
| Ohio.....                    | 775,000      | 685,000      | 580,000      | 850,000      |
| Indiana.....                 |              |              | 80,000       | 95,000       |
| Illinois.....                | 423,760      | 420,000      | 470,000      | 620,000      |
| Wisconsin.....               | 125,000      | 25,000       | 85,000       | 70,000       |
| Minnesota.....               | 50,000       | 50,000       | 40,000       | 40,000       |
| Missouri.....                | 535,000      | 410,000      | 557,000      | 623,000      |
| Kansas.....                  | 393,000      | 391,000      | 390,000      | 421,000      |
| Western Division:            |              |              |              |              |
| California.....              | 475,220      | 648,000      | 603,000      | 603,000      |

TABLE 7.—*Productive funds held by colleges for women from 1891-92 to 1894-95.*

| State.                       | 1891-92.      | 1892-93.      | 1893-94.      | 1894-95.      |
|------------------------------|---------------|---------------|---------------|---------------|
| United States.....           | \$3, 954, 489 | \$3, 594, 947 | \$4, 759, 153 | \$5, 172, 767 |
| North Atlantic Division..... | 3, 032, 357   | 2, 835, 315   | 3, 574, 728   | 3, 764, 800   |
| South Atlantic Division..... | 282, 500      | 303, 500      | 443, 925      | 589, 000      |
| South Central Division.....  | 70, 500       | 52, 000       | 85, 000       | 85, 500       |
| North Central Division.....  | 491, 132      | 329, 132      | 580, 500      | 658, 467      |
| Western Division.....        | 75, 000       | 75, 000       | 75, 000       | 75, 000       |
| North Atlantic Division:     |               |               |               |               |
| Maine.....                   | 141, 000      | 121, 000      | 110, 000      | 132, 913      |
| New Hampshire.....           | 49, 000       | 30, 350       | 30, 350       | 30, 000       |
| Massachusetts.....           | 755, 875      | 780, 420      | 1, 008, 149   | 1, 134, 470   |
| New York.....                | 1, 386, 482   | 1, 303, 545   | 1, 367, 229   | 1, 410, 417   |
| Pennsylvania.....            | 700, 000      | 600, 000      | 1, 050, 000   | 1, 057, 000   |
| South Atlantic Division:     |               |               |               |               |
| Maryland.....                | 180, 000      | 205, 000      | 230, 000      | 374, 000      |
| Virginia.....                | 4, 000        | 5, 000        | 97, 500       | 90, 000       |
| North Carolina.....          | 7, 500        | 7, 500        | 10, 425       | 10, 000       |
| South Carolina.....          | 1, 000        | 1, 000        | 41, 000       | 40, 000       |
| Georgia.....                 | 90, 000       | 85, 000       | 65, 000       | 75, 000       |
| South Central Division:      |               |               |               |               |
| Kentucky.....                |               |               | 3, 000        |               |
| Tennessee.....               | 40, 500       | 35, 000       | 30, 000       | 35, 000       |
| Mississippi.....             |               | 17, 000       | 20, 000       | 18, 000       |
| Louisiana.....               | 30, 000       |               | 32, 000       | 32, 500       |
| North Central Division:      |               |               |               |               |
| Ohio.....                    | 279, 132      | 109, 132      | 282, 000      | 342, 077      |
| Illinois.....                | 30, 000       | 37, 000       | 42, 500       | 55, 390       |
| Wisconsin.....               | 75, 000       | 75, 000       | 155, 000      | 153, 000      |
| Minnesota.....               | 26, 000       | 26, 000       | 26, 000       | 26, 000       |
| Missouri.....                | 81, 000       | 80, 000       | 75, 000       | 82, 000       |
| Kansas.....                  | 3, 000        | 2, 000        |               |               |
| Western Division:            |               |               |               |               |
| California.....              | 75, 000       | 75, 000       | 75, 000       | 75, 000       |

TABLE 8.—*Benefactions received by colleges for women from 1890-91 to 1894-95.*

| State.                        | 1890-91.   | 1891-92.   | 1892-93.   | 1893-94.   | 1894-95.   |
|-------------------------------|------------|------------|------------|------------|------------|
| United States .....           | \$725, 885 | \$220, 147 | \$182, 981 | \$369, 183 | \$625, 734 |
| North Atlantic Division ..... | 444, 905   | 91, 487    | 130, 881   | 225, 708   | 297, 224   |
| South Atlantic Division ..... | 118, 075   | 8, 260     | 26, 200    | 6, 525     | 129, 200   |
| South Central Division .....  | 22, 600    | 18, 900    | 1, 200     | 45, 050    | 14, 250    |
| North Central Division .....  | 117, 305   | 100, 500   | 24, 700    | 91, 850    | 173, 860   |
| Western Division .....        | 23, 000    | 1, 000     | -----      | 50         | 11, 100    |
| North Atlantic Division:      |            |            |            |            |            |
| Maine .....                   | 200        | 1, 250     | 1, 200     | 2, 500     | 6, 500     |
| New Hampshire .....           | 10, 000    | -----      | 246        | -----      | 8, 000     |
| Massachusetts .....           | 48, 039    | 41, 527    | 30, 855    | 145, 368   | 109, 067   |
| New York .....                | 381, 666   | 47, 385    | 63, 680    | 55, 840    | 120, 857   |
| New Jersey .....              | -----      | -----      | -----      | -----      | 2, 500     |
| Pennsylvania .....            | 5, 000     | 1, 325     | 34, 900    | 22, 000    | 50, 300    |
| South Atlantic Division:      |            |            |            |            |            |
| Maryland .....                | 20, 000    | -----      | -----      | 50         | 125, 500   |
| Virginia .....                | 95, 600    | 360        | 3, 450     | 5, 000     | -----      |
| North Carolina .....          | 2, 125     | 1, 100     | 525        | 1, 225     | 3, 700     |
| South Carolina .....          | -----      | -----      | 2, 000     | 250        | -----      |
| Georgia .....                 | 350        | 6, 800     | 20, 225    | -----      | -----      |
| South Central Division:       |            |            |            |            |            |
| Kentucky .....                | 1, 100     | 1, 350     | -----      | 20, 000    | 250        |
| Tennessee .....               | 12, 600    | 17, 050    | 200        | -----      | -----      |
| Alabama .....                 | 1, 000     | -----      | -----      | 150        | 3, 000     |
| Mississippi .....             | 4, 400     | 500        | -----      | 200        | 10, 000    |
| Louisiana .....               | 3, 500     | -----      | -----      | 6, 400     | 1, 100     |
| Texas .....                   | -----      | -----      | 1, 000     | 18, 300    | -----      |
| North Central Division:       |            |            |            |            |            |
| Ohio .....                    | 108, 055   | 72, 000    | 21, 000    | 30, 500    | 7, 856     |
| Indiana .....                 | -----      | -----      | -----      | 37, 000    | 30, 000    |
| Illinois .....                | -----      | -----      | -----      | 5, 200     | 6, 964     |
| Wisconsin .....               | 250        | 500        | -----      | -----      | -----      |
| Minnesota .....               | 1, 500     | 28, 000    | -----      | 1, 200     | 840        |
| Missouri .....                | 5, 000     | -----      | 3, 000     | 14, 950    | 128, 200   |
| Kansas .....                  | 2, 500     | -----      | 700        | 3, 000     | -----      |
| Western Division:             |            |            |            |            |            |
| California .....              | 23, 000    | 1, 000     | -----      | 50         | 11, 100    |

TABLE 9.—*Income of colleges for women from 1891-92 to 1894-95.*

| State.                       | 1891-92.      | 1892-93.      | 1893-94.      | 1894-95.      |
|------------------------------|---------------|---------------|---------------|---------------|
| United States.....           | \$2, 778, 588 | \$3, 070, 516 | \$3, 285, 191 | \$3, 441, 158 |
| North Atlantic Division..... | 1, 187, 335   | 1, 324, 033   | 1, 335, 455   | 1, 468, 957   |
| South Atlantic Division..... | 532, 245      | 660, 728      | 704, 347      | 668, 278      |
| South Central Division.....  | 573, 977      | 512, 275      | 644, 469      | 664, 299      |
| North Central Division.....  | 418, 281      | 457, 730      | 509, 515      | 548, 119      |
| Western Division.....        | 66, 750       | 115, 750      | 91, 405       | 91, 505       |
| North Atlantic Division:     |               |               |               |               |
| Maine.....                   | 22, 841       | 15, 600       | 16, 000       | 17, 174       |
| New Hampshire.....           | 11, 900       | 21, 002       | 22, 700       | 23, 503       |
| Massachusetts.....           | 494, 302      | 539, 734      | 545, 802      | 654, 801      |
| New York.....                | 373, 640      | 411, 199      | 411, 051      | 400, 631      |
| New Jersey.....              | 16, 400       | 20, 000       | 2, 000        | 8, 000        |
| Pennsylvania.....            | 268, 252      | 316, 498      | 337, 902      | 364, 843      |
| South Atlantic Division:     |               |               |               |               |
| Maryland.....                | 62, 500       | 92, 300       | 140, 779      | 113, 202      |
| Virginia.....                | 153, 990      | 190, 718      | 172, 209      | 168, 131      |
| West Virginia.....           | 1, 575        | 900           | 900           | 3, 500        |
| North Carolina.....          | 104, 550      | 120, 980      | 112, 421      | 102, 850      |
| South Carolina.....          | 75, 080       | 97, 240       | 93, 288       | 77, 645       |
| Georgia.....                 | 134, 550      | 158, 590      | 184, 750      | 202, 950      |
| South Central Division:      |               |               |               |               |
| Kentucky.....                | 156, 000      | 108, 500      | 129, 750      | 125, 100      |
| Tennessee.....               | 156, 900      | 172, 520      | 222, 900      | 231, 600      |
| Alabama.....                 | 136, 150      | 90, 350       | 116, 704      | 127, 537      |
| Mississippi.....             | 97, 027       | 70, 705       | 92, 665       | 99, 312       |
| Louisiana.....               | 12, 100       | 8, 000        | 17, 450       | 27, 450       |
| Texas.....                   | 15, 800       | 62, 200       | 62, 000       | 44, 300       |
| Arkansas.....                |               |               | 3, 000        | 9, 000        |
| North Central Division:      |               |               |               |               |
| Ohio.....                    | 118, 200      | 148, 083      | 133, 774      | 164, 880      |
| Indiana.....                 |               |               | 20, 000       | 19, 500       |
| Illinois.....                | 89, 100       | 131, 409      | 136, 721      | 127, 781      |
| Wisconsin.....               | 23, 000       | 13, 000       | 24, 750       | 25, 678       |
| Minnesota.....               | 9, 170        | 7, 570        | 5, 470        | 5, 620        |
| Missouri.....                | 146, 131      | 125, 000      | 154, 100      | 168, 600      |
| Kansas.....                  | 32, 680       | 32, 663       | 34, 700       | 36, 000       |
| Western Division:            |               |               |               |               |
| California.....              | 66, 750       | 115, 750      | 91, 405       | 91, 505       |



## III.—SCHOOLS OF TECHNOLOGY.

The number of independent schools of technology increased from 40 in 1890-91 to 51 in 1894-95. This increase is due to the establishment in the newer States and in the Territories of colleges of agriculture and the mechanic arts, endowed by the acts of Congress of July 2, 1862, and August 30, 1890, and to the separation of similar colleges from other educational institutions in several of the older States. The statistics of these institutions for the years 1890-91 and 1891-92 are very incomplete and no attempt has been made to form totals for several of the geographical divisions and for the United States for those years. The statistics for the three years from 1892-93 to 1894-95 are, however, quite complete, as will be seen by an examination of the following tables.

The number of institutions of this class maintaining preparatory departments is quite small, the number of instructors in such departments during the past year being only 141. The number of instructors in collegiate departments increased from 909 in 1892-93 to 1,130 in 1894-95, and the entire number of instructors in all departments increased from 1,016 in 1892-93 to 1,217 in 1894-95. The average number of instructors per institution during the several years was as follows:

*Total number of instructors per institution.*

| Division.                    | 1890-91. | 1891-92. | 1892-93. | 1893-94. | 1894-95. |
|------------------------------|----------|----------|----------|----------|----------|
| United States.....           | .....    | .....    | 21       | 24       | 24       |
| North Atlantic Division..... | 28       | 28       | 30       | 33       | 33       |
| South Atlantic Division..... | .....    | .....    | 15       | 18       | 17       |
| South Central Division.....  | 17       | .....    | 21       | 23       | 23       |
| North Central Division.....  | 24       | 23       | 23       | 27       | 27       |
| Western Division.....        | 9        | 11       | 11       | 11       | 15       |

*Collegiate instructors per institution.*

| Division.                    | 1890-91. | 1891-92. | 1892-93. | 1893-94. | 1894-95. |
|------------------------------|----------|----------|----------|----------|----------|
| United States.....           | .....    | .....    | 19       | 21       | 22       |
| North Atlantic Division..... | 26       | 28       | 29       | 32       | 32       |
| South Atlantic Division..... | .....    | .....    | 15       | 17       | 17       |
| South Central Division.....  | 14       | .....    | 14       | 18       | 18       |
| North Central Division.....  | 23       | 22       | 22       | 21       | 26       |
| Western Division.....        | 9        | 9        | 8        | 9        | 13       |

From these statements it is seen that the number of instructors per institution has been steadily increasing from 1890-91 to the present time.

The total number of students increased from 11,957 in 1892-93 to 13,896 in 1894-95. The increase in the number of preparatory students is due to the fact that the recently established institutions in the newer States and in the Territories enroll the majority of their students in preparatory departments. As the public schools become able to pre-

pare students for college classes the number of preparatory students will decrease. The number of students of the various classes per institution are given in the following statements:

*Preparatory students per institution.*

| Division.                     | 1890-91. | 1891-92. | 1892-93. | 1893-94. | 1894-95. |
|-------------------------------|----------|----------|----------|----------|----------|
| United States .....           |          |          | 42       | 44       | 60       |
| North Atlantic Division ..... | 33       | 33       | 30       | 30       | 23       |
| South Atlantic Division ..... |          |          | 11       | 62       | 48       |
| South Central Division .....  |          |          | 76       | 81       | 136      |
| North Central Division .....  | 33       | 28       | 30       | 20       | 46       |
| Western Division .....        | 33       | 112      | 85       | 43       | 88       |

*College students per institution.*

| Division.                     | 1890-91. | 1891-92. | 1892-93. | 1893-94. | 1894-95. |
|-------------------------------|----------|----------|----------|----------|----------|
| United States .....           |          |          | 190      | 185      | 203      |
| North Atlantic Division ..... | 224      | 250      | 256      | 264      | 274      |
| South Atlantic Division ..... |          |          | 112      | 143      | 158      |
| South Central Division .....  |          |          | 127      | 133      | 183      |
| North Central Division .....  | 266      | 263      | 301      | 234      | 250      |
| Western Division .....        | 54       | 84       | 101      | 94       | 103      |

*Total number of students per institution.*

| Division.                     | 1890-91. | 1891-92. | 1892-93. | 1893-94. | 1894-95. |
|-------------------------------|----------|----------|----------|----------|----------|
| United States .....           |          |          | 249      | 266      | 272      |
| North Atlantic Division ..... | 231      | 288      | 292      | 296      | 301      |
| South Atlantic Division ..... |          |          | 124      | 207      | 201      |
| South Central Division .....  |          |          | 290      | 312      | 367      |
| North Central Division .....  | 317      | 318      | 340      | 365      | 311      |
| Western Division .....        | 116      | 196      | 184      | 138      | 197      |

As will be seen from the preceding tables, the institutions of the North Atlantic Division have the largest average number of college students to each institution, while the South Central Division has the largest number of students of all classes per institution. The largest number of graduate students are found in the North Central Division.

The number of volumes in libraries increased from 358,481 in 1891-92 to 446,681 in 1894-95. The average number of volumes per institution during the several years was as follows:

*Average number of volumes in libraries.*

| Division.                     | 1891-92. | 1892-93. | 1893-94. | 1894-95. |
|-------------------------------|----------|----------|----------|----------|
| United States .....           | 8, 147   | 8, 152   | 8, 211   | 8, 758   |
| North Atlantic Division ..... | 15, 593  | 15, 885  | 17, 102  | 18, 515  |
| South Atlantic Division ..... | 6, 158   | 5, 746   | 5, 337   | 5, 009   |
| South Central Division .....  | 3, 831   | 4, 203   | 4, 232   | 4, 542   |
| North Central Division .....  | 6, 979   | 7, 633   | 7, 423   | 8, 528   |
| Western Division .....        | 1, 787   | 1, 663   | 1, 949   | 2, 535   |

While there has been an actual increase each year in the number of volumes in libraries for each of the several divisions, it will be noticed that there has been a slight variation in the average number per institution in two of the divisions, viz, the South Atlantic and Western divisions. The decrease shown in these divisions is due to the establishment of new institutions whose libraries have not yet attained any considerable size. As many of these institutions are receiving an annually increasing appropriation from the United States Government, it is but natural to expect that the number of volumes in libraries, as well as the value of scientific apparatus, will be annually increased. The value of apparatus and the value of grounds and buildings per institution during the several years were as follows:

*Value of scientific apparatus per institution.*

| Division.                    | 1891-92. | 1892-93. | 1893-94. | 1894-95. |
|------------------------------|----------|----------|----------|----------|
| United States.....           |          | \$51,552 | \$60,299 | \$64,548 |
| North Atlantic Division..... |          | 81,979   | 84,339   | 85,529   |
| South Atlantic Division..... |          | 17,640   | 16,385   | 16,375   |
| South Central Division.....  |          | 34,856   | 39,845   | 38,929   |
| North Central Division.....  |          | 83,828   | 115,103  | 133,720  |
| Western Division.....        | \$20,531 | 18,993   | 25,504   | 30,018   |

*Value of grounds and buildings per institution.*

| Division.                    | 1891-92. | 1892-93.  | 1893-94.  | 1894-95.  |
|------------------------------|----------|-----------|-----------|-----------|
| United States.....           |          | \$222,456 | \$228,728 | \$239,818 |
| North Atlantic Division..... |          | 406,715   | 420,293   | 461,926   |
| South Atlantic Division..... |          | 144,313   | 161,308   | 135,251   |
| South Central Division.....  |          | 139,316   | 149,658   | 184,674   |
| North Central Division.....  |          | 217,569   | 233,270   | 236,541   |
| Western Division.....        | \$70,440 | 77,173    | 69,087    | 88,501    |

The total value of grounds and buildings increased from \$10,687,870 in 1892-93 to \$12,230,734 in 1894-95. In the South Atlantic Division the value of grounds and buildings decreased from \$1,774,390 in 1893-94 to \$1,623,015 in 1894-95. This decrease is easily accounted for, as the buildings of the Clemson Agricultural College, South Carolina, were destroyed by fire.

The income of these institutions in 1894-95 amounted to \$3,798,791, which is \$524,060 less than the income for 1893-94. In this connection it should, however, be remembered that the Pennsylvania State College, with an income of over \$120,000, is not included in these statistics for the year 1894-95. The State appropriations to these institutions were less by \$255,000 than they were in the preceding year. This decrease occurred in all of the divisions except the South Atlantic

Division. The average income per institution from 1892-93 to 1894-95 was as follows:

*Average income per institution.*

| Division.                     | 1892-93.  | 1893-94.  | 1894-95.  |
|-------------------------------|-----------|-----------|-----------|
| United States .....           | \$83, 985 | \$83, 132 | \$74, 486 |
| North Atlantic Division ..... | 105, 795  | 120, 740  | 101, 459  |
| South Atlantic Division ..... | 78, 590   | 72, 915   | 71, 324   |
| South Central Division .....  | 68, 173   | 61, 793   | 55, 848   |
| North Central Division .....  | 77, 920   | 87, 027   | 75, 853   |
| Western Division .....        | 73, 217   | 48, 953   | 49, 830   |

The statistics, by States and Territories, of schools of technology are given in the following tables:

TABLE 1.—Number of schools of technology, with the number of students from 1890-91 to 1894-95.

| State or Territory.          | Institutions. |          |          |          |          | Students. |          |          |          |          |
|------------------------------|---------------|----------|----------|----------|----------|-----------|----------|----------|----------|----------|
|                              | 1890-91.      | 1891-92. | 1892-93. | 1893-94. | 1894-95. | 1890-91.  | 1891-92. | 1892-93. | 1893-94. | 1894-95. |
| United States .....          | 40            | 44       | 48       | 52       | 51       | .....     | .....    | 11, 959  | 13, 857  | 13, 896  |
| North Atlantic Division..... | 13            | 13       | 14       | 14       | 13       | 3, 394    | 3, 749   | 4, 083   | 4, 146   | 3, 919   |
| South Atlantic Division..... | 8             | 9        | 10       | 11       | 12       | .....     | .....    | 1, 246   | 2, 273   | 2, 415   |
| South Central Division.....  | 6             | 7        | 7        | 7        | 7        | 2, 168    | .....    | 2, 095   | 2, 181   | 2, 568   |
| North Central Division.....  | 8             | 9        | 9        | 11       | 11       | 2, 537    | 2, 862   | 3, 056   | 4, 012   | 3, 421   |
| Western Division.....        | 5             | 6        | 8        | 9        | 8        | 581       | 1, 176   | 1, 474   | 1, 245   | 1, 573   |
| North Atlantic Division:     |               |          |          |          |          |           |          |          |          |          |
| Maine .....                  | 1             | 1        | 1        | 1        | 1        | 113       | 111      | 145      | 139      | 203      |
| New Hampshire.....           | .....         | .....    | 1        | 1        | 1        | .....     | .....    | 33       | 64       | 97       |
| Vermont.....                 | 1             | 1        | 1        | 1        | 1        | 52        | 52       | 63       | 59       | 64       |
| Massachusetts.....           | 3             | 3        | 3        | 3        | 3        | 1, 307    | 1, 481   | 1, 533   | 1, 628   | 1, 598   |
| Rhode Island.....            | 1             | 1        | 1        | 1        | 1        | 33        | 77       | 93       | 82       | 110      |
| Connecticut.....             | 1             | 1        | 1        | 1        | 1        | 63        | 64       | 103      | 98       | 145      |
| New York.....                | 2             | 2        | 2        | 2        | 2        | 462       | 442      | 475      | 479      | 488      |
| New Jersey.....              | 2             | 2        | 2        | 2        | 2        | 741       | 751      | 786      | 753      | 715      |
| Pennsylvania.....            | 2             | 2        | 2        | 2        | 1        | 623       | 771      | 857      | 844      | 499      |
| South Atlantic Division:     |               |          |          |          |          |           |          |          |          |          |
| Delaware.....                | 0             | 1        | 1        | 1        | 1        | 0         | 11       | 17       | 30       | 29       |
| Maryland.....                | 2             | 2        | 2        | 2        | 2        | .....     | .....    | 352      | 368      | 395      |
| District of Columbia.....    | .....         | .....    | .....    | .....    | 1        | .....     | .....    | .....    | .....    | 60       |
| Virginia.....                | 2             | 2        | 2        | 2        | 2        | 351       | 316      | 401      | 433      | 532      |
| North Carolina.....          | 1             | 1        | 2        | 2        | 2        | .....     | .....    | 115      | 248      | 395      |
| South Carolina.....          | 1             | 1        | 1        | 2        | 2        | .....     | .....    | 136      | 886      | 678      |
| Georgia.....                 | 1             | 1        | 1        | 1        | 1        | .....     | .....    | 140      | 121      | 125      |
| Florida.....                 | 1             | 1        | 1        | 1        | 1        | 166       | 110      | 85       | 187      | 201      |
| South Central Division:      |               |          |          |          |          |           |          |          |          |          |
| Kentucky.....                | 1             | 1        | 1        | 1        | 1        | 404       | .....    | 386      | 398      | 526      |
| Alabama.....                 | 1             | 1        | 1        | 1        | 1        | 284       | 255      | 243      | 256      | 271      |
| Mississippi.....             | 2             | 2        | 2        | 2        | 2        | 533       | 584      | 523      | 549      | 641      |
| Texas.....                   | 1             | 1        | 1        | 1        | 1        | 316       | 331      | 293      | 313      | 372      |
| Arkansas.....                | 1             | 1        | 1        | 1        | 1        | 631       | 556      | 518      | 555      | 614      |
| Oklahoma.....                | .....         | 1        | 1        | 1        | 1        | .....     | .....    | 72       | 132      | 144      |
| North Central Division:      |               |          |          |          |          |           |          |          |          |          |
| Ohio.....                    | 1             | 1        | 1        | 1        | 1        | 103       | 100      | 167      | 193      | 210      |
| Indiana.....                 | 2             | 2        | 2        | 2        | 2        | 693       | 806      | 841      | 817      | 754      |
| Illinois.....                | .....         | .....    | .....    | 1        | 1        | .....     | .....    | .....    | 1, 050   | 421      |
| Michigan.....                | 2             | 2        | 2        | 2        | 2        | 425       | 423      | 455      | 448      | 496      |
| Iowa.....                    | 1             | 1        | 1        | 1        | 1        | 425       | 547      | 620      | 614      | 556      |
| North Dakota.....            | 0             | 1        | 1        | 1        | 1        | 0         | 123      | 83       | 61       | 83       |
| South Dakota.....            | 1             | 1        | 1        | 2        | 2        | 310       | 279      | 303      | 273      | 323      |
| Kansas.....                  | 1             | 1        | 1        | 1        | 1        | 581       | 584      | 587      | 556      | 572      |
| Western Division:            |               |          |          |          |          |           |          |          |          |          |
| Montana.....                 | 0             | 0        | 1        | 1        | 1        | 0         | 0        | 8        | 139      | 148      |
| Colorado.....                | 2             | 2        | 2        | 2        | 2        | 218       | 233      | 285      | 320      | 366      |
| New Mexico.....              | 1             | 1        | 1        | 2        | 1        | 72        | 134      | 109      | 96       | 161      |
| Utah.....                    | 1             | 1        | 1        | 1        | 1        | 139       | 296      | 366      | 249      | 360      |
| Washington.....              | .....         | .....    | 1        | 1        | 1        | .....     | .....    | 229      | 110      | 186      |
| Oregon.....                  | 1             | 1        | 1        | 2        | 2        | 152       | 208      | 282      | 331      | 352      |
| California.....              | .....         | 1        | 1        | .....    | .....    | .....     | 305      | 195      | .....    | .....    |



TABLE 2.—*Number of instructors in preparatory departments of schools of technology from 1890-91 to 1894-95.*

| State or Territory.          | 1890-91. |              | 1891-92. |              | 1892-93. |              | 1893-94. |              | 1894-95. |              |
|------------------------------|----------|--------------|----------|--------------|----------|--------------|----------|--------------|----------|--------------|
|                              | Male.    | Fe-<br>male. | Male.    | Fe-<br>male. | Male.    | Fe-<br>male. | Male.    | Fe-<br>male. | Male.    | Fe-<br>male. |
| United States.....           |          |              |          |              | 86       | 22           | 91       | 19           | 111      | 30           |
| North Atlantic Division..... | 19       | 2            | 19       | 2            | 19       | 2            | 17       | 1            | 13       | 0            |
| South Atlantic Division..... |          |              |          |              | 5        | 0            | 12       | 0            | 15       | 1            |
| South Central Division.....  | 15       | 5            |          |              | 17       | 5            | 20       | 5            | 31       | 9            |
| North Central Division.....  | 22       | 3            | 22       | 5            | 29       | 5            | 34       | 7            | 42       | 13           |
| Western Division.....        | 8        | 3            | 12       | 8            | 16       | 10           | 8        | 6            | 10       | 7            |
| North Atlantic Division:     |          |              |          |              |          |              |          |              |          |              |
| New Jersey.....              | 16       | 0            | 16       | 0            | 16       | 0            | 13       | 0            | 13       | 0            |
| Pennsylvania.....            | 3        | 2            | 3        | 2            | 3        | 2            | 4        | 1            | 0        | 0            |
| South Atlantic Division:     |          |              |          |              |          |              |          |              |          |              |
| Maryland.....                | 2        | 0            | 2        | 0            | 2        | 0            | 2        | 0            | 1        | 0            |
| Virginia.....                |          |              |          |              |          |              |          |              | 2        | 0            |
| North Carolina.....          |          |              |          |              | 0        | 0            | 3        | 0            | 5        | 1            |
| South Carolina.....          | 0        | 0            | 0        | 0            | 0        | 0            | 4        | 0            | 4        | 0            |
| Georgia.....                 |          |              |          |              | 1        | 0            | 2        | 0            | 1        | 0            |
| Florida.....                 |          |              | 2        | 0            | 2        | 0            | 1        | 0            | 2        | 0            |
| South Central Division:      |          |              |          |              |          |              |          |              |          |              |
| Kentucky.....                | 4        | 1            |          |              | 4        | 1            | 4        | 1            | 4        | 1            |
| Alabama.....                 | 2        | 0            | 2        | 0            | 2        | 0            | 1        | 0            | 1        | 0            |
| Mississippi.....             | 7        | 0            | 8        | 0            | 8        | 0            | 8        | 0            | 14       | 0            |
| Arkansas.....                | 2        | 4            | 1        | 5            | 1        | 4            | 5        | 4            | 11       | 7            |
| Oklahoma.....                |          |              | 6        | 0            | 2        | 0            | 2        | 0            | 1        | 1            |
| North Central Division:      |          |              |          |              |          |              |          |              |          |              |
| Indiana.....                 |          |              |          |              | 6        | 3            | 6        | 3            | 0        | 0            |
| Illinois.....                |          |              |          |              |          |              |          |              | 20       | 8            |
| North Dakota.....            |          |              | 4        | 0            | 4        | 0            | 10       | 0            | 2        | 1            |
| South Dakota.....            | 22       |              | 18       | 5            | 19       | 2            | 18       | 4            | 20       | 4            |
| Western Division:            |          |              |          |              |          |              |          |              |          |              |
| Montana.....                 | 0        | 0            | 0        | 0            | 2        | 0            | 2        | 0            | 4        | 1            |
| Colorado.....                |          |              |          |              |          |              | 1        | 0            | 1        | 0            |
| New Mexico.....              | 2        | 1            | 2        | 1            | 2        | 1            | 1        | 1            | 1        | 2            |
| Utah.....                    | 5        | 2            | 2        | 1            | 1        | 1            | 2        | 1            | 2        | 1            |
| Washington.....              |          |              |          |              | 4        | 3            | 1        | 1            | 1        | 0            |
| Oregon.....                  | 1        | 0            | 1        | 1            | 1        | 1            | 1        | 3            | 1        | 3            |
| California.....              |          |              | 7        | 5            | 6        | 4            |          |              |          |              |

TABLE 3.—*Number of instructors in collegiate departments of schools of technology from 1890-91 to 1894-95.*

| State or Territory.          | 1890-91. |              | 1891-92. |              | 1892-93. |              | 1893-94. |              | 1894-95. |              |
|------------------------------|----------|--------------|----------|--------------|----------|--------------|----------|--------------|----------|--------------|
|                              | Male.    | Fe-<br>male. | Male.    | Fe-<br>male. | Male.    | Fe-<br>male. | Male.    | Fe-<br>male. | Male.    | Fe-<br>male. |
| United States.....           | .....    | .....        | .....    | .....        | 867      | 42           | 1,022    | 56           | 1,653    | 77           |
| North Atlantic Division..... | 330      | 10           | 350      | 9            | 389      | 11           | 434      | 12           | 469      | 10           |
| South Atlantic Division..... | .....    | .....        | .....    | .....        | 143      | 0            | 189      | 1            | 191      | 7            |
| South Central Division.....  | 83       | 0            | .....    | .....        | 98       | 0            | 117      | 6            | 118      | 6            |
| North Central Division.....  | 164      | 21           | 172      | 26           | 177      | 25           | 207      | 23           | 246      | 41           |
| Western Division.....        | 37       | 6            | 45       | 9            | 55       | 6            | 75       | 9            | 89       | 13           |
| North Atlantic Division:     |          |              |          |              |          |              |          |              |          |              |
| Maine.....                   | 13       | 1            | 17       | 1            | 18       | 1            | 20       | 1            | 20       | 1            |
| New Hampshire.....           | .....    | .....        | .....    | .....        | 16       | 0            | 15       | 0            | 17       | 0            |
| Vermont.....                 | 8        | 0            | 8        | 0            | 11       | 0            | 10       | 0            | 11       | 0            |
| Massachusetts.....           | 148      | 1            | 154      | 1            | 162      | 1            | 186      | 1            | 199      | 1            |
| Rhode Island.....            | 7        | 3            | 10       | 2            | 9        | 4            | 10       | 4            | 19       | 5            |
| Connecticut.....             | 4        | 2            | 6        | 2            | 7        | 2            | 7        | 3            | 8        | 3            |
| New York.....                | 70       | 0            | 73       | 0            | 75       | 0            | 83       | 0            | 71       | 0            |
| New Jersey.....              | 24       | 0            | 25       | 0            | 26       | 0            | 29       | 0            | 28       | 0            |
| Pennsylvania.....            | 56       | 3            | 57       | 3            | 65       | 3            | 74       | 3            | 36       | 0            |
| South Atlantic Division:     |          |              |          |              |          |              |          |              |          |              |
| Delaware.....                | .....    | .....        | 4        | 0            | 3        | 0            | 3        | 0            | 3        | 0            |
| Maryland.....                | .....    | .....        | .....    | .....        | 77       | 0            | 77       | 0            | 73       | 0            |
| District of Columbia.....    | .....    | .....        | .....    | .....        | .....    | .....        | .....    | .....        | 8        | 0            |
| Virginia.....                | 27       | 0            | 29       | 0            | 33       | 0            | 37       | 0            | 36       | 0            |
| North Carolina.....          | .....    | .....        | .....    | .....        | 12       | 0            | 19       | 0            | 23       | 2            |
| South Carolina.....          | 9        | 0            | 9        | 0            | 9        | 0            | 26       | 0            | 29       | 0            |
| Georgia.....                 | .....    | .....        | .....    | .....        | 7        | 0            | 13       | 0            | 6        | 0            |
| Florida.....                 | .....    | .....        | 9        | 0            | 7        | 0            | 14       | 1            | 13       | 5            |
| South Central Division:      |          |              |          |              |          |              |          |              |          |              |
| Kentucky.....                | 14       | 0            | .....    | .....        | 16       | 0            | 19       | 0            | 20       | 0            |
| Alabama.....                 | 18       | 0            | 25       | 0            | 25       | 0            | 27       | 0            | 21       | 0            |
| Mississippi.....             | 17       | 0            | 22       | 0            | 22       | 0            | 25       | 0            | 26       | 0            |
| Texas.....                   | 18       | 0            | 15       | 0            | 17       | 0            | 20       | 0            | 22       | 0            |
| Arkansas.....                | 16       | 0            | 18       | 2            | 13       | 0            | 20       | 6            | 22       | 6            |
| Oklahoma.....                | .....    | .....        | 0        | 0            | 5        | 0            | 6        | 0            | 7        | 0            |
| North Central Division:      |          |              |          |              |          |              |          |              |          |              |
| Ohio.....                    | 11       | 0            | 11       | 0            | 16       | 0            | 20       | 0            | 20       | 0            |
| Indiana.....                 | 47       | 6            | 47       | 5            | 51       | 6            | 61       | 6            | 75       | 7            |
| Illinois.....                | .....    | .....        | .....    | .....        | .....    | .....        | .....    | .....        | 20       | 8            |
| Michigan.....                | 36       | 0            | 36       | 0            | 30       | 0            | 40       | 0            | 44       | 0            |
| Iowa.....                    | 26       | 7            | 28       | 8            | 23       | 9            | 31       | 11           | 29       | 12           |
| North Dakota.....            | .....    | .....        | 9        | 2            | 9        | 1            | 9        | 0            | 11       | 2            |
| South Dakota.....            | 22       | 3            | 18       | 5            | 19       | 2            | 21       | 4            | 20       | 4            |
| Kansas.....                  | 22       | 5            | 23       | 6            | 24       | 7            | 25       | 7            | 27       | 8            |
| Western Division:            |          |              |          |              |          |              |          |              |          |              |
| Montana.....                 | 0        | 0            | 0        | 0            | 0        | 0            | 6        | 1            | 10       | 2            |
| Colorado.....                | 17       | 2            | 19       | 2            | 18       | 2            | 17       | 2            | 25       | 3            |
| New Mexico.....              | 6        | 0            | 8        | 3            | 10       | 1            | 12       | 1            | 12       | 0            |
| Utah.....                    | 5        | 2            | 9        | 3            | 8        | 1            | 12       | 1            | 15       | 3            |
| Washington.....              | .....    | .....        | .....    | .....        | 6        | 1            | 10       | 1            | 10       | 2            |
| Oregon.....                  | 9        | 1            | 9        | 1            | 13       | 1            | 18       | 3            | 17       | 3            |

TABLE 4.—Total number of instructors in schools of technology from 1890-91 to 1894-95.

| State or Territory.             | 1890-91. |              | 1891-92. |              | 1892-93. |              | 1893-94. |              | 1894-95. |              |
|---------------------------------|----------|--------------|----------|--------------|----------|--------------|----------|--------------|----------|--------------|
|                                 | Male.    | Fe-<br>male. | Male.    | Fe-<br>male. | Male.    | Fe-<br>male. | Male.    | Fe-<br>male. | Male.    | Fe-<br>male. |
| United States .....             |          |              |          |              | 951      | 65           | 1,143    | 88           | 1,125    | 92           |
| North Atlantic Division.....    | 349      | 10           | 369      | 9            | 408      | 12           | 451      | 13           | 422      | 10           |
| South Atlantic Division.....    |          |              |          |              | 153      | 0            | 202      | 1            | 202      | 7            |
| South Central Division.....     | 95       | 6            |          |              | 137      | 7            | 154      | 7            | 150      | 13           |
| North Central Division.....     | 168      | 21           | 181      | 27           | 183      | 27           | 251      | 49           | 251      | 41           |
| Western Division .....          | 40       | 7            | 54       | 15           | 70       | 19           | 85       | 18           | 100      | 21           |
| <b>North Atlantic Division:</b> |          |              |          |              |          |              |          |              |          |              |
| Maine .....                     | 13       | 1            | 17       | 1            | 18       | 1            | 20       | 1            | 20       | 1            |
| New Hampshire .....             |          |              |          |              | 16       | 0            | 15       | 0            | 17       | 0            |
| Vermont .....                   | 8        | 0            | 8        | 0            | 11       | 0            | 10       | 0            | 11       | 0            |
| Massachusetts .....             | 148      | 1            | 154      | 1            | 162      | 1            | 186      | 1            | 199      | 1            |
| Rhode Island .....              | 7        | 3            | 10       | 2            | 9        | 4            | 10       | 4            | 19       | 5            |
| Connecticut .....               | 4        | 2            | 6        | 2            | 7        | 2            | 7        | 3            | 8        | 3            |
| New York .....                  | 70       | 0            | 73       | 0            | 75       | 0            | 83       | 0            | 71       | 0            |
| New Jersey .....                | 40       | 0            | 41       | 0            | 42       | 0            | 42       | 0            | 41       | 0            |
| Pennsylvania .....              | 59       | 3            | 60       | 3            | 68       | 4            | 78       | 4            | 36       | 0            |
| <b>South Atlantic Division:</b> |          |              |          |              |          |              |          |              |          |              |
| Delaware .....                  |          |              | 4        | 0            | 3        | 0            | 3        | 0            | 3        | 0            |
| Maryland .....                  |          |              |          |              | 79       | 0            | 79       | 0            | 74       | 0            |
| District of Columbia .....      |          |              |          |              |          |              |          |              | 8        | 0            |
| Virginia .....                  | 27       | 0            | 29       | 0            | 33       | 0            | 37       | 0            | 38       | 0            |
| North Carolina .....            |          |              |          |              | 12       | 0            | 24       | 0            | 25       | 2            |
| South Carolina .....            | 9        | 0            | 9        | 0            | 9        | 0            | 31       | 0            | 33       | 0            |
| Georgia .....                   |          |              |          |              | 8        | 0            | 13       | 0            | 6        | 0            |
| Florida .....                   | 10       | 0            | 11       | 0            | 9        | 0            | 15       | 1            | 15       | 5            |
| <b>South Central Division:</b>  |          |              |          |              |          |              |          |              |          |              |
| Kentucky .....                  | 18       | 1            |          |              | 22       | 1            | 27       | 1            | 33       | 2            |
| Alabama .....                   | 18       | 0            | 27       | 0            | 27       | 0            | 28       | 0            | 22       | 0            |
| Mississippi .....               | 23       | 0            | 30       | 0            | 37       | 0            | 40       | 0            | 40       | 0            |
| Texas .....                     | 18       | 0            | 20       | 0            | 19       | 0            | 20       | 0            | 22       | 0            |
| Arkansas .....                  | 18       | 5            | 21       | 7            | 25       | 6            | 31       | 6            | 25       | 10           |
| Oklahoma .....                  |          |              | 6        | 0            | 7        | 0            | 8        | 0            | 8        | 1            |
| <b>North Central Division:</b>  |          |              |          |              |          |              |          |              |          |              |
| Ohio .....                      | 11       | 0            | 11       | 0            | 16       | 0            | 20       | 0            | 20       | 0            |
| Indiana .....                   | 51       | 6            | 52       | 6            | 54       | 7            | 66       | 6            | 75       | 7            |
| Illinois .....                  |          |              |          |              |          |              | 33       | 19           | 20       | 8            |
| Michigan .....                  | 36       | 0            | 36       | 0            | 30       | 0            | 40       | 0            | 44       | 0            |
| Iowa .....                      | 26       | 7            | 28       | 8            | 28       | 9            | 31       | 11           | 29       | 12           |
| North Dakota .....              |          |              | 13       | 2            | 12       | 2            | 15       | 2            | 11       | 2            |
| South Dakota .....              | 22       | 3            | 18       | 5            | 19       | 2            | 21       | 4            | 25       | 4            |
| Kansas .....                    | 22       | 5            | 23       | 6            | 24       | 7            | 25       | 7            | 27       | 8            |
| <b>Western Division:</b>        |          |              |          |              |          |              |          |              |          |              |
| Montana .....                   |          |              |          |              | 2        | 0            | 8        | 1            | 11       | 3            |
| Colorado .....                  | 17       | 3            | 19       | 2            | 18       | 2            | 17       | 2            | 26       | 3            |
| New Mexico .....                | 8        | 1            | 8        | 3            | 12       | 2            | 13       | 2            | 15       | 2            |
| Utah .....                      | 5        | 2            | 11       | 4            | 11       | 5            | 17       | 4            | 19       | 4            |
| Washington .....                |          |              |          |              | 7        | 4            | 11       | 2            | 11       | 2            |
| Oregon .....                    | 10       | 1            | 9        | 1            | 14       | 2            | 19       | 7            | 18       | 7            |
| California .....                |          |              | 7        | 5            | 6        | 4            |          |              |          |              |

TABLE 5.—*Number of students in preparatory departments of schools of technology from 1890-91 to 1894-95.*

| State or Territory.          | 1890-91. |              | 1891-92. |              | 1892-93. |              | 1893-94. |              | 1894-95. |              |
|------------------------------|----------|--------------|----------|--------------|----------|--------------|----------|--------------|----------|--------------|
|                              | Male.    | Fe-<br>male. | Male.    | Fe-<br>male. | Male.    | Fe-<br>male. | Male.    | Fe-<br>male. | Male.    | Fe-<br>male. |
| United States.....           |          |              |          |              | 1, 644   | 373          | 1, 947   | 324          | 2, 380   | 660          |
| North Atlantic Division..... | 416      | 7            | 408      | 19           | 405      | 20           | 396      | 20           | 303      | 0            |
| South Atlantic Division..... |          |              |          |              | 107      | 0            | 642      | 39           | 487      | 85           |
| South Central Division.....  |          |              |          |              | 462      | 67           | 489      | 75           | 757      | 194          |
| North Central Division.....  | 183      | 84           | 196      | 60           | 216      | 58           | 169      | 54           | 360      | 151          |
| Western Division.....        | 108      | 57           | 395      | 280          | 454      | 228          | 251      | 136          | 473      | 230          |
| North Atlantic Division:     |          |              |          |              |          |              |          |              |          |              |
| New Jersey.....              | 340      | 0            | 340      | 0            | 338      | 0            | 314      | 0            | 303      | 0            |
| Pennsylvania.....            | 76       | 7            | 68       | 19           | 67       | 20           | 82       | 20           | 0        | 0            |
| South Atlantic Division:     |          |              |          |              |          |              |          |              |          |              |
| Delaware.....                |          |              |          |              |          |              | 14       | 2            |          |              |
| Maryland.....                |          |              |          |              | 30       | 0            | 35       | 0            | 32       | 0            |
| Virginia.....                |          |              |          |              | 17       | 0            | 34       | 0            | 55       | 0            |
| North Carolina.....          |          |              |          |              | 0        | 0            | 70       | 19           | 99       | 77           |
| South Carolina.....          | 0        | 0            | 0        | 0            | 0        | 0            | 400      | 0            | 225      | 0            |
| Georgia.....                 |          |              |          |              | 30       | 0            | 36       | 0            | 15       | 0            |
| Florida.....                 |          |              | 61       | 0            | 30       | 0            | 53       | 18           | 61       | 8            |
| South Central Division:      |          |              |          |              |          |              |          |              |          |              |
| Kentucky.....                |          |              |          |              | 91       | 22           | 114      | 27           | 80       | 12           |
| Alabama.....                 | 46       | 0            | 30       | 0            | 30       | 0            | 20       | 0            | 19       | 0            |
| Mississippi.....             | 320      | 7            | 342      | 12           | 314      | 9            | 322      | 6            | 342      | 5            |
| Texas.....                   |          |              | 94       | 0            | 0        | 0            | 0        | 0            | 0        | 0            |
| Arkansas.....                |          |              | 261      | 127          |          |              |          |              | 267      | 136          |
| Oklahoma.....                |          |              | 38       | 34           | 27       | 36           | 33       | 42           | 49       | 41           |
| North Central Division:      |          |              |          |              |          |              |          |              |          |              |
| Indiana.....                 | 88       | 23           | 92       | 5            | 87       | 8            | 45       | 11           | 0        | 0            |
| Illinois.....                |          |              |          |              |          |              |          |              | 236      | 74           |
| Iowa.....                    | 39       | 13           | 27       | 11           | 27       | 13           | 40       | 6            | 22       | 6            |
| North Dakota.....            |          |              | 27       | 3            | 26       | 5            | 32       | 9            | 48       | 9            |
| South Dakota.....            | 56       | 48           | 50       | 41           | 76       | 32           | 52       | 28           | 54       | 62           |
| Western Division:            |          |              |          |              |          |              |          |              |          |              |
| Montana.....                 |          |              |          |              | 5        | 3            | 25       | 13           | 43       | 29           |
| Colorado.....                | 29       | 20           | 21       | 4            | 30       | 4            | 25       | 6            | 40       | 22           |
| New Mexico.....              | 30       | 19           | 67       | 36           | 45       | 17           | 30       | 15           | 62       | 38           |
| Utah.....                    |          |              | 109      | 47           | 109      | 53           | 59       | 32           | 168      | 61           |
| Washington.....              |          |              |          |              | 98       | 25           | 57       | 33           | 89       | 48           |
| Oregon.....                  | 49       | 18           | 38       | 48           | 72       | 26           | 55       | 37           | 71       | 32           |
| California.....              |          |              | 160      | 145          | 95       | 100          |          |              |          |              |



TABLE 6.—Number of students in collegiate departments of schools of technology from 1890-91 to 1894-95.

| State or Territory.          | 1890-91. |              | 1891-92. |              | 1892-93. |              | 1893-94. |              | 1894-95. |              |
|------------------------------|----------|--------------|----------|--------------|----------|--------------|----------|--------------|----------|--------------|
|                              | Male.    | Fe-<br>male. | Male.    | Fe-<br>male. | Male.    | Fe-<br>male. | Male.    | Fe-<br>male. | Male.    | Fe-<br>male. |
| United States.....           |          |              |          |              | 8,225    | 882          | 8,686    | 940          | 9,292    | 1,059        |
| North Atlantic Division..... | 2,846    | 61           | 3,179    | 73           | 3,483    | 104          | 3,591    | 104          | 3,416    | 140          |
| South Atlantic Division..... |          |              |          |              | 1,123    | 0            | 1,536    | 40           | 1,850    | 48           |
| South Central Division.....  |          |              |          |              | 804      | 83           | 867      | 62           | 1,171    | 147          |
| North Central Division.....  | 1,086    | 440          | 1,038    | 432          | 2,251    | 455          | 2,099    | 477          | 2,281    | 472          |
| Western Division.....        | 207      | 64           | 387      | 114          | 564      | 240          | 593      | 257          | 574      | 252          |
| North Atlantic Division:     |          |              |          |              |          |              |          |              |          |              |
| Maine.....                   | 111      | 1            | 108      | 3            | 143      | 2            | 137      | 2            | 191      | 9            |
| New Hampshire.....           |          |              |          |              | 27       | 6            | 54       | 10           | 78       | 19           |
| Vermont.....                 | 52       | 0            | 52       | 0            | 63       | 0            | 59       | 0            | 64       | 0            |
| Massachusetts.....           | 1,244    | 41           | 1,417    | 41           | 1,466    | 42           | 1,564    | 46           | 1,514    | 58           |
| Rhode Island.....            | 29       | 4            | 65       | 12           | 67       | 26           | 69       | 13           | 68       | 32           |
| Connecticut.....             | 63       | 0            | 58       | 6            | 84       | 19           | 78       | 20           | 123      | 22           |
| New York.....                | 462      | 0            | 442      | 0            | 474      | 0            | 479      | 0            | 488      | 0            |
| New Jersey.....              | 390      | 0            | 405      | 0            | 440      | 0            | 423      | 0            | 412      | 0            |
| Pennsylvania.....            | 495      | 15           | 632      | 11           | 719      | 9            | 723      | 13           | 478      | 0            |
| South Atlantic Division:     |          |              |          |              |          |              |          |              |          |              |
| Delaware.....                |          |              | 11       | 0            | 17       | 0            | 10       | 4            | 22       | 7            |
| Maryland.....                |          |              |          |              | 320      | 0            | 333      | 0            | 357      | 0            |
| District of Columbia.....    |          |              |          |              |          |              |          |              | 69       | 0            |
| Virginia.....                | 351      | 0            | 316      | 0            | 370      | 0            | 389      | 0            | 459      | 0            |
| North Carolina.....          |          |              |          |              | 115      | 0            | 153      | 0            | 210      | 0            |
| South Carolina.....          |          |              |          |              | 136      | 0            | 486      | 0            | 541      | 0            |
| Georgia.....                 |          |              |          |              | 110      | 0            | 85       | 0            | 110      | 0            |
| Florida.....                 |          |              | 49       | 0            | 55       | 0            | 80       | 36           | 91       | 41           |
| South Central Division:      |          |              |          |              |          |              |          |              |          |              |
| Kentucky.....                |          |              |          |              | 63       | 42           | 104      | 45           | 129      | 43           |
| Alabama.....                 | 231      | 0            | 225      | 0            | 210      | 3            | 218      | 4            | 235      | 4            |
| Mississippi.....             | 201      | 1            | 231      | 1            | 212      | 1            | 213      | 0            | 233      | 2            |
| Texas.....                   | 316      | 0            | 237      | 0            | 289      | 0            | 310      | 0            | 368      | 0            |
| Arkansas.....                |          |              | 113      | 50           |          |              |          |              | 128      | 72           |
| Oklahoma.....                |          |              | 0        | 0            | 30       | 37           | 22       | 13           | 28       | 26           |
| North Central Division:      |          |              |          |              |          |              |          |              |          |              |
| Ohio.....                    | 103      | 0            | 100      | 0            | 167      | 0            | 185      | 0            | 216      | 0            |
| Indiana.....                 | 425      | 58           | 491      | 0            | 649      | 67           | 666      | 69           | 652      | 69           |
| Illinois.....                |          |              |          |              |          |              |          |              | 94       | 17           |
| Michigan.....                | 353      | 30           | 387      | 28           | 431      | 21           | 414      | 23           | 457      | 24           |
| Iowa.....                    | 292      | 81           | 410      | 89           | 478      | 88           | 376      | 106          | 405      | 111          |
| North Dakota.....            |          |              | 33       | 60           | 45       | 7            | 16       | 4            | 18       | 6            |
| South Dakota.....            | 147      | 56           | 115      | 73           | 109      | 86           | 109      | 77           | 91       | 51           |
| Kansas.....                  | 366      | 215          | 402      | 182          | 372      | 186          | 333      | 198          | 348      | 194          |
| Western Division:            |          |              |          |              |          |              |          |              |          |              |
| Montana.....                 |          |              |          |              | 0        | 0            | 53       | 48           | 35       | 41           |
| Colorado.....                | 135      | 34           | 167      | 41           | 211      | 40           | 232      | 49           | 248      | 42           |
| New Mexico.....              | 18       | 5            | 28       | 3            | 36       | 24           | 37       | 14           | 23       | 9            |
| Utah.....                    |          |              | 100      | 40           | 131      | 73           | 112      | 46           | 81       | 49           |
| Washington.....              |          |              |          |              | 71       | 34           | 10       | 10           | 33       | 16           |
| Oregon.....                  | 54       | 25           | 92       | 30           | 115      | 69           | 149      | 90           | 154      | 95           |

TABLE 7.—*Number of graduate students in schools of technology from 1890-91 to 1894-95.*

| State or Territory.          | 1890-91. |              | 1891-92. |              | 1892-93. |              | 1893-94. |              | 1894-95. |              |
|------------------------------|----------|--------------|----------|--------------|----------|--------------|----------|--------------|----------|--------------|
|                              | Male.    | Fe-<br>male. | Male.    | Fe-<br>male. | Male.    | Fe-<br>male. | Male.    | Fe-<br>male. | Male.    | Fe-<br>male. |
| United States.....           |          |              |          |              | 161      | 27           | 146      | 28           | 205      | 48           |
| North Atlantic Division..... | 67       | 0            | 70       | 0            | 76       | 0            | 35       | 0            | 59       | 1            |
| South Atlantic Division..... |          |              |          |              | 14       | 0            | 17       | 0            | 33       | 0            |
| South Central Division.....  |          |              |          |              | 21       | 0            | 25       | 0            | 31       | 7            |
| North Central Division.....  | 62       | 16           | 18       | 1            | 49       | 27           | 62       | 27           | 70       | 37           |
| Western Division.....        | 5        | 1            | 0        | 0            | 1        | 0            | 7        | 1            | 12       | 3            |
| North Atlantic Division:     |          |              |          |              |          |              |          |              |          |              |
| Maine.....                   | 1        | 0            | 0        | 0            | 0        | 0            | 0        | 0            | 3        | 0            |
| Massachusetts.....           | 22       | 0            | 23       | 0            | 25       | 0            | 18       | 0            | 26       | 0            |
| Rhode Island.....            | 0        | 0            | 0        | 0            | 0        | 0            | 0        | 0            | 9        | 1            |
| New York.....                | 0        | 0            | 0        | 0            | 1        | 0            | 0        | 0            | 0        | 0            |
| New Jersey.....              | 14       | 0            | 6        | 0            | 8        | 0            | 11       | 0            | 0        | 0            |
| Pennsylvania.....            | 30       | 0            | 41       | 0            | 42       | 0            | 6        | 0            | 21       | 0            |
| South Atlantic Division:     |          |              |          |              |          |              |          |              |          |              |
| Maryland.....                |          |              | 0        | 0            | 0        | 0            | 0        | 0            | 6        | 0            |
| Virginia.....                | 0        | 0            | 0        | 0            | 14       | 0            | 11       | 0            | 18       | 0            |
| West Virginia.....           |          |              |          |              |          |              |          |              |          |              |
| North Carolina.....          |          |              |          |              | 0        | 0            | 6        | 0            | 9        | 0            |
| South Central Division:      |          |              |          |              |          |              |          |              |          |              |
| Kentucky.....                |          |              |          |              | 0        | 0            | 0        | 0            | 0        | 1            |
| Alabama.....                 | 7        | 0            | 0        | 0            | 12       | 0            | 14       | 0            | 12       | 1            |
| Mississippi.....             | 4        | 0            | 0        | 0            | 5        | 0            | 8        | 0            | 9        | 0            |
| Texas.....                   | 0        | 0            | 0        | 0            | 4        | 0            | 3        | 0            | 4        | 0            |
| Arkansas.....                |          |              | 2        | 3            | 0        | 0            | 0        | 0            | 6        | 5            |
| North Central Division:      |          |              |          |              |          |              |          |              |          |              |
| Ohio.....                    | 0        | 0            | 0        | 0            | 0        | 0            | 8        | 0            | 0        | 0            |
| Indiana.....                 | 23       | 10           | 1        | 0            | 22       | 8            | 19       | 7            | 28       | 9            |
| Michigan.....                | 37       | 5            | 8        | 0            | 3        | 0            | 10       | 1            | 13       | 2            |
| Iowa.....                    | 0        | 0            | 9        | 1            | 10       | 4            | 7        | 5            | 7        | 5            |
| North Dakota.....            |          |              | 0        | 0            | 0        | 0            | 0        | 0            | 2        | 0            |
| South Dakota.....            | 2        | 1            | 0        | 0            | 0        | 0            | 4        | 3            | 7        | 4            |
| Kansas.....                  | 0        | 0            | 0        | 0            | 14       | 15           | 14       | 11           | 13       | 17           |
| Western Division:            |          |              |          |              |          |              |          |              |          |              |
| Colorado.....                | 0        | 0            | 0        | 0            | 0        | 0            | 7        | 1            | 12       | 2            |
| Arizona.....                 |          |              |          |              |          |              |          |              |          |              |
| Utah.....                    |          |              | 0        | 0            | 0        | 0            | 0        | 0            | 0        | 1            |
| Nevada.....                  |          |              |          |              |          |              |          |              |          |              |
| Idaho.....                   |          |              |          |              |          |              |          |              |          |              |
| Washington.....              |          |              |          |              | 1        | 0            | 0        | 0            | 0        | 0            |
| Oregon.....                  | 5        | 1            | 0        | 0            | 0        | 0            | 0        | 0            | 0        | 0            |

TABLE 8.—Total number of students in schools of technology from 1890-91 to 1894-95.

| State or Territory.          | 1890-91. |         | 1891-92. |         | 1892-93. |         | 1893-94. |         | 1894-95. |         |
|------------------------------|----------|---------|----------|---------|----------|---------|----------|---------|----------|---------|
|                              | Male.    | Female. | Male.    | Female. | Male.    | Female. | Male.    | Female. | Male.    | Female. |
| United States.....           | -----    | -----   | -----    | -----   | 10,453   | 1,504   | 11,900   | 1,957   | 12,031   | 1,865   |
| North Atlantic Division..... | 3,326    | 68      | 3,657    | 92      | 3,964    | 124     | 4,022    | 124     | 3,778    | 141     |
| South Atlantic Division..... | -----    | -----   | -----    | -----   | 1,244    | 0       | 2,194    | 79      | 2,282    | 133     |
| South Central Division.....  | -----    | -----   | -----    | -----   | 1,711    | 384     | 1,818    | 363     | 2,151    | 417     |
| North Central Division.....  | 1,997    | 540     | 2,273    | 589     | 2,516    | 540     | 3,015    | 997     | 2,742    | 679     |
| Western Division.....        | 426      | 155     | 782      | 394     | 1,018    | 456     | 851      | 394     | 1,078    | 495     |
| North Atlantic Division:     |          |         |          |         |          |         |          |         |          |         |
| Maine.....                   | 112      | 1       | 108      | 3       | 143      | 2       | 137      | 2       | 194      | 9       |
| New Hampshire.....           | -----    | -----   | -----    | -----   | 27       | 6       | 54       | 10      | 78       | 19      |
| Vermont.....                 | 52       | 0       | 52       | 0       | 63       | 0       | 59       | 0       | 64       | 0       |
| Massachusetts.....           | 1,266    | 41      | 1,440    | 41      | 1,491    | 42      | 1,582    | 46      | 1,540    | 58      |
| Rhode Island.....            | 29       | 4       | 65       | 12      | 67       | 26      | 69       | 13      | 77       | 33      |
| Connecticut.....             | 63       | 0       | 58       | 6       | 84       | 19      | 78       | 20      | 123      | 22      |
| New York.....                | 462      | 0       | 442      | 0       | 475      | 0       | 479      | 0       | 488      | 0       |
| New Jersey.....              | 741      | 0       | 751      | 0       | 786      | 0       | 753      | 0       | 715      | 0       |
| Pennsylvania.....            | 601      | 22      | 741      | 30      | 828      | 29      | 811      | 33      | 499      | 0       |
| South Atlantic Division:     |          |         |          |         |          |         |          |         |          |         |
| Delaware.....                | -----    | -----   | 11       | 0       | 17       | 0       | 24       | 6       | 22       | 7       |
| Maryland.....                | -----    | -----   | -----    | -----   | 350      | 0       | 368      | 0       | 395      | 0       |
| District of Columbia.....    | -----    | -----   | -----    | -----   | -----    | -----   | -----    | -----   | 60       | 0       |
| Virginia.....                | 351      | 0       | 316      | 0       | 401      | 0       | 433      | 0       | 532      | 0       |
| North Carolina.....          | -----    | -----   | -----    | -----   | 115      | 0       | 229      | 19      | 318      | 77      |
| South Carolina.....          | -----    | -----   | -----    | -----   | 136      | 0       | 886      | 0       | 678      | 0       |
| Georgia.....                 | -----    | -----   | -----    | -----   | 140      | 0       | 121      | 0       | 125      | 0       |
| Florida.....                 | 166      | 0       | 110      | 0       | 85       | 0       | 133      | 54      | 152      | 49      |
| South Central Division:      |          |         |          |         |          |         |          |         |          |         |
| Kentucky.....                | -----    | -----   | -----    | -----   | 271      | 115     | 280      | 118     | 401      | 125     |
| Alabama.....                 | 284      | 0       | 255      | 0       | 240      | 3       | 252      | 4       | 266      | 5       |
| Mississippi.....             | 525      | 8       | 573      | 13      | 513      | 10      | 543      | 6       | 634      | 7       |
| Texas.....                   | 316      | 0       | 331      | 0       | 293      | 0       | 313      | 0       | 372      | 0       |
| Arkansas.....                | -----    | -----   | 376      | 180     | 335      | 183     | 375      | 180     | 401      | 213     |
| Oklahoma.....                | -----    | -----   | 38       | 34      | 59       | 73      | 55       | 55      | 77       | 67      |
| North Central Division:      |          |         |          |         |          |         |          |         |          |         |
| Ohio.....                    | 103      | 0       | 100      | 0       | 167      | 0       | 193      | 0       | 216      | 0       |
| Indiana.....                 | 602      | 91      | 705      | 101     | 758      | 83      | 730      | 87      | 677      | 77      |
| Illinois.....                | -----    | -----   | -----    | -----   | -----    | -----   | 611      | 439     | 330      | 91      |
| Michigan.....                | 390      | 35      | 395      | 28      | 434      | 21      | 424      | 24      | 470      | 26      |
| Iowa.....                    | 331      | 94      | 446      | 101     | 515      | 105     | 497      | 117     | 434      | 122     |
| North Dakota.....            | -----    | -----   | 60       | 63      | 71       | 12      | 48       | 13      | 68       | 15      |
| South Dakota.....            | 205      | 105     | 165      | 114     | 185      | 118     | 165      | 108     | 186      | 137     |
| Kansas.....                  | 366      | 215     | 402      | 182     | 386      | 201     | 347      | 209     | 361      | 211     |
| Western Division:            |          |         |          |         |          |         |          |         |          |         |
| Montana.....                 | -----    | -----   | -----    | -----   | 5        | 3       | 78       | 61      | 78       | 70      |
| Colorado.....                | 164      | 54      | 188      | 45      | 241      | 44      | 264      | 56      | 300      | 66      |
| New Mexico.....              | 48       | 24      | 95       | 39      | 80       | 29      | 67       | 29      | 104      | 57      |
| Utah.....                    | 106      | 33      | 209      | 87      | 240      | 126     | 171      | 78      | 249      | 111     |
| Washington.....              | -----    | -----   | -----    | -----   | 170      | 59      | 67       | 43      | 122      | 64      |
| Oregon.....                  | 108      | 44      | 130      | 78      | 187      | 95      | 204      | 127     | 225      | 127     |
| California.....              | -----    | -----   | 160      | 145     | 95       | 100     | -----    | -----   | -----    | -----   |

TABLE 9.—*Volumes in libraries of schools of technology from 1891-92 to 1894-95.*

| State or Territory.          | 1891-92. | 1892-93. | 1893-94. | 1894-95. |
|------------------------------|----------|----------|----------|----------|
| United States.....           | 358, 481 | 391, 282 | 426, 954 | 446, 681 |
| North Atlantic Division..... | 202, 714 | 222, 394 | 239, 430 | 240, 693 |
| South Atlantic Division..... | 55, 421  | 57, 461  | 58, 702  | 60, 108  |
| South Central Division.....  | 26, 817  | 29, 421  | 29, 621  | 31, 794  |
| North Central Division.....  | 62, 807  | 68, 701  | 81, 656  | 93, 899  |
| Western Division.....        | 10, 722  | 13, 305  | 17, 545  | 20, 277  |
| North Atlantic Division:     |          |          |          |          |
| Maine.....                   | 7, 374   | 8, 110   | 9, 200   | 9, 782   |
| New Hampshire.....           |          | 0        | 3, 300   | 3, 607   |
| Vermont.....                 | 11, 000  | 11, 500  | 12, 000  | 12, 500  |
| Massachusetts.....           | 41, 590  | 43, 836  | 52, 818  | 57, 631  |
| Rhode Island.....            | 1, 000   | 1, 500   | 2, 530   | 4, 530   |
| Connecticut.....             | 1, 750   | 1, 780   | 1, 800   | 1, 840   |
| New York.....                | 38, 000  | 40, 000  | 41, 062  | 44, 703  |
| New Jersey.....              | 7, 000   | 7, 500   | 7, 800   | 9, 100   |
| Pennsylvania.....            | 95, 000  | 108, 168 | 108, 920 | 97, 000  |
| South Atlantic Division:     |          |          |          |          |
| Delaware.....                | 221      | 261      | 281      | 293      |
| Maryland.....                | 32, 500  | 33, 550  | 34, 389  | 36, 350  |
| District of Columbia.....    |          |          |          | 75       |
| Virginia.....                | 12, 500  | 13, 500  | 15, 600  | 12, 675  |
| North Carolina.....          | 1, 200   | 1, 500   | 1, 312   | 2, 520   |
| South Carolina.....          | 5, 000   | 5, 000   | 5, 500   | 6, 500   |
| Florida.....                 | 4, 000   | 3, 650   | 1, 620   | 1, 695   |
| South Central Division:      |          |          |          |          |
| Kentucky.....                | 2, 000   | 2, 284   | 2, 363   | 2, 509   |
| Alabama.....                 | 6, 977   | 8, 177   | 8, 898   | 9, 939   |
| Mississippi.....             | 6, 313   | 6, 585   | 6, 521   | 6, 598   |
| Texas.....                   | 4, 500   | 4, 500   | 4, 500   | 4, 500   |
| Arkansas.....                | 6, 000   | 6, 670   | 6, 134   | 6, 241   |
| Oklahoma.....                | 1, 027   | 1, 205   | 1, 205   | 2, 007   |
| North Central Division:      |          |          |          |          |
| Ohio.....                    | 1, 500   | 1, 500   | 1, 500   | 1, 500   |
| Indiana.....                 | 11, 748  | 12, 000  | 12, 918  | 13, 935  |
| Illinois.....                |          |          | 10, 000  | 15, 000  |
| Michigan.....                | 24, 080  | 26, 283  | 26, 772  | 29, 333  |
| Iowa.....                    | 9, 300   | 10, 853  | 10, 381  | 11, 000  |
| North Dakota.....            | 1, 154   | 1, 326   | 1, 452   | 2, 095   |
| South Dakota.....            | 2, 855   | 3, 095   | 3, 771   | 3, 946   |
| Kansas.....                  | 12, 170  | 13, 644  | 14, 862  | 17, 000  |
| Western Division:            |          |          |          |          |
| Montana.....                 |          | 55       | 560      | 1, 80    |
| Colorado.....                | 5, 918   | 6, 344   | 7, 555   | 8, 00    |
| New Mexico.....              | 1, 451   | 1, 856   | 2, 197   | 2, 32    |
| Utah.....                    | 1, 800   | 1, 900   | 2, 403   | 2, 82    |
| Washington.....              |          | 1, 200   | 2, 852   | 2, 85    |
| Oregon.....                  | 1, 553   | 1, 950   | 1, 978   | 2, 47    |



TABLE 10.—*Value of scientific apparatus of schools of technology from 1891-92 to 1894-95.*

| State or Territory.          | 1891-92.   | 1892-93.      | 1893-94.      | 1894-95.      |
|------------------------------|------------|---------------|---------------|---------------|
| United States.....           | -----      | \$2, 474, 493 | \$3, 135, 566 | \$3, 291, 042 |
| North Atlantic Division..... | -----      | 1, 147, 711   | 1, 180, 741   | 1, 111, 873   |
| South Atlantic Division..... | -----      | 176, 400      | 180, 255      | 193, 509      |
| South Central Division.....  | -----      | 243, 989      | 278, 914      | 272, 501      |
| North Central Division.....  | -----      | 754, 450      | 1, 266, 138   | 1, 470, 925   |
| Western Division.....        | \$123, 183 | 151, 943      | 229, 588      | 240, 143      |
| North Atlantic Division:     |            |               |               |               |
| Maine.....                   | 48, 000    | 74, 000       | 34, 400       | 35, 000       |
| New Hampshire.....           |            | 22, 500       | 25, 505       | 11, 000       |
| Massachusetts.....           | 281, 877   | 304, 211      | 337, 159      | 378, 196      |
| Rhode Island.....            |            | 18, 000       | 32, 000       | 35, 000       |
| Connecticut.....             | 8, 000     | 8, 000        | 4, 000        | 5, 000        |
| New York.....                |            | 525, 000      | 529, 677      | 529, 677      |
| New Jersey.....              |            | 51, 000       | 53, 000       | 55, 000       |
| Pennsylvania.....            |            | 145, 000      | 165, 000      | 65, 000       |
| South Atlantic Division:     |            |               |               |               |
| Delaware.....                | 6, 900     | 6, 900        | 6, 900        | 7, 000        |
| Maryland.....                |            | 20, 000       | 21, 685       | 29, 000       |
| District of Columbia.....    |            |               |               | 2, 000        |
| Virginia.....                | 45, 000    | 55, 500       | 62, 000       | 85, 500       |
| North Carolina.....          |            | 14, 000       | 14, 400       | 2, 000        |
| South Carolina.....          |            | 40, 000       | 45, 000       | 30, 000       |
| Georgia.....                 |            | 25, 000       | 25, 000       | 35, 000       |
| Florida.....                 | 15, 000    | 15, 000       | 5, 250        | 6, 000        |
| South Central Division:      |            |               |               |               |
| Kentucky.....                | 30, 000    | 37, 892       | 42, 755       | 46, 000       |
| Alabama.....                 | 55, 500    | 61, 730       | 64, 100       | 86, 000       |
| Mississippi.....             | 58, 650    | 65, 650       | 80, 665       | 18, 055       |
| Texas.....                   | 49, 368    | 33, 825       | 35, 039       | 73, 946       |
| Arkansas.....                |            | 23, 000       | 26, 355       | 30, 000       |
| Oklahoma.....                | 13, 772    | 16, 492       | 30, 000       | 18, 500       |
| North Central Division:      |            |               |               |               |
| Ohio.....                    | 50, 000    | 50, 000       | 50, 000       | 60, 000       |
| Indiana.....                 |            | 171, 000      | 225, 000      | 299, 000      |
| Illinois.....                |            |               | 500, 000      | 568, 000      |
| Michigan.....                | 259, 646   | 245, 436      | 168, 424      | 245, 539      |
| Iowa.....                    |            | 104, 889      | 104, 889      | 110, 000      |
| North Dakota.....            |            | 24, 000       | 27, 500       | 15, 500       |
| South Dakota.....            |            | 29, 125       | 32, 323       | 29, 000       |
| Kansas.....                  |            | 130, 000      | 158, 000      | 143, 836      |
| Western Division:            |            |               |               |               |
| Montana.....                 |            | 0             | 6, 300        | 10, 000       |
| Colorado.....                | 50, 000    | 52, 000       | 110, 000      | 96, 453       |
| New Mexico.....              | 20, 183    | 25, 296       | 28, 195       | 28, 190       |
| Utah.....                    | 26, 000    | 33, 000       | 40, 000       | 35, 000       |
| Washington.....              |            | 14, 577       | 15, 913       | 35, 000       |
| Oregon.....                  | 27, 000    | 27, 070       | 29, 125       | 35, 500       |

TABLE 11.—*Value of grounds and buildings of schools of technology from 1891-92 to 1894-95.*

| State or Territory.          | 1891-92.    | 1892-93.       | 1893-94.       | 1894-95.       |
|------------------------------|-------------|----------------|----------------|----------------|
| United States .....          |             | \$10, 687, 870 | \$11, 893, 859 | \$12, 230, 734 |
| North Atlantic Division..... |             | 5, 694, 017    | 5, 884, 104    | 6, 005, 041    |
| South Atlantic Division..... |             | 1, 443, 130    | 1, 774, 390    | 1, 623, 015    |
| South Central Division.....  |             | 975, 215       | 1, 047, 603    | 1, 292, 721    |
| North Central Division.....  |             | 1, 958, 121    | 2, 565, 973    | 2, 601, 951    |
| Western Division.....        | \$122, 638  | 617, 387       | 621, 789       | 708, 006       |
| North Atlantic Division:     |             |                |                |                |
| Maine .....                  | 197, 000    | 183, 050       | 190, 850       | 187, 750       |
| New Hampshire.....           |             | 168, 000       | 170, 886       | 219, 131       |
| Vermont.....                 |             | 50, 000        | 50, 000        | 50, 000        |
| Massachusetts.....           | 1, 088, 922 | 1, 158, 467    | 1, 334, 868    | 1, 752, 160    |
| Rhode Island.....            |             | 88, 500        | 90, 500        | 130, 000       |
| Connecticut.....             | 75, 000     | 75, 000        | 75, 000        | 75, 000        |
| New York.....                |             | 2, 125, 000    | 2, 125, 000    | 2, 125, 000    |
| New Jersey.....              |             | 266, 000       | 267, 000       | 266, 000       |
| Pennsylvania.....            |             | 1, 580, 000    | 1, 580, 000    | 1, 200, 000    |
| South Atlantic Division:     |             |                |                |                |
| Delaware.....                | 13, 800     | 13, 800        | 13, 800        | 14, 800        |
| Maryland.....                |             | 668, 600       | 665, 135       | 679, 600       |
| Virginia.....                | 370, 030    | 370, 850       | 423, 500       | 401, 600       |
| North Carolina.....          |             | 80, 000        | 91, 830        | 120, 890       |
| South Carolina.....          |             | 201, 280       | 470, 280       | 311, 280       |
| Georgia.....                 |             | 65, 000        | 65, 000        | 50, 000        |
| Florida.....                 | 43, 600     | 43, 600        | 44, 845        | 44, 845        |
| South Central Division:      |             |                |                |                |
| Kentucky.....                |             | 121, 000       | 122, 212       | 325, 000       |
| Alabama.....                 | 122, 100    | 129, 460       | 133, 660       | 135, 000       |
| Mississippi.....             | 221, 200    | 232, 600       | 234, 151       | 240, 101       |
| Texas.....                   | 316, 246    | 283, 455       | 282, 155       | 327, 620       |
| Arkansas.....                |             | 195, 000       | 240, 425       | 240, 000       |
| Oklahoma.....                | 13, 000     | 13, 700        | 35, 000        | 25, 000        |
| North Central Division:      |             |                |                |                |
| Ohio.....                    | 300, 000    | 300, 000       | 300, 000       | 250, 000       |
| Indiana.....                 |             | 569, 000       | 546, 000       | 540, 000       |
| Illinois.....                |             |                | 500, 000       | 468, 000       |
| Michigan.....                | 406, 841    | 416, 021       | 427, 373       | 457, 760       |
| Iowa.....                    |             | 244, 400       | 350, 600       | 403, 000       |
| North Dakota.....            | 79, 200     | 60, 000        | 99, 000        | 107, 500       |
| South Dakota.....            |             | 103, 700       | 124, 000       | 130, 600       |
| Kansas.....                  |             | 165, 000       | 219, 000       | 245, 691       |
| Western Division:            |             |                |                |                |
| Montana.....                 |             | 8, 000         | 13, 000        | 15, 000        |
| Colorado.....                | 175, 000    | 213, 000       | 161, 000       | 251, 181       |
| New Mexico.....              | 36, 038     | 37, 873        | 73, 223        | 38, 825        |
| Utah.....                    | 86, 600     | 173, 600       | 161, 600       | 145, 500       |
| Washington.....              |             | 59, 577        | 69, 329        | 146, 000       |
| Oregon.....                  | 125, 000    | 125, 337       | 143, 637       | 111, 500       |

TABLE 12.—*State appropriations to schools of technology from 1891-92 to 1894-95.*

| State or Territory.          | 1891-92.  | 1892-93.      | 1893-94.      | 1894-95.   |
|------------------------------|-----------|---------------|---------------|------------|
| United States.....           |           | \$1, 078, 224 | \$1, 035, 523 | \$780, 198 |
| North Atlantic Division..... |           | 224, 272      | 230, 944      | 116, 500   |
| South Atlantic Division..... |           | 179, 500      | 146, 881      | 188, 530   |
| South Central Division.....  |           | 193, 815      | 140, 395      | 114, 601   |
| North Central Division.....  |           | 153, 195      | 311, 239      | 203, 683   |
| Western Division.....        |           | 327, 442      | 206, 064      | 150, 884   |
| North Atlantic Division:     |           |               |               |            |
| Maine.....                   | \$24, 500 | 5, 000        | 3, 000        | 11, 500    |
| New Hampshire.....           |           | 63, 500       | 38, 000       | 0          |
| Massachusetts.....           | 20, 000   | 18, 000       | 70, 000       | 25, 000    |
| Rhode Island.....            | 16, 000   | 15, 000       | 20, 000       | 50, 000    |
| Connecticut.....             | 20, 000   | 15, 000       | 20, 000       | 20, 000    |
| New Jersey.....              |           | 10, 000       | 10, 000       | 10, 000    |
| Pennsylvania.....            |           | 97, 772       | 69, 944       | 0          |
| South Atlantic Division:     |           |               |               |            |
| Delaware.....                | 8, 000    | 1, 000        | 0             | 0          |
| Maryland.....                | 6, 000    | 6, 000        | 9, 381        | 15, 000    |
| Virginia.....                | 20, 750   | 32, 500       | 32, 500       | 48, 500    |
| North Carolina.....          |           | 17, 500       | 17, 500       | 17, 500    |
| South Carolina.....          |           | 100, 000      | 65, 000       | 85, 000    |
| Georgia.....                 |           | 22, 500       | 22, 500       | 22, 530    |
| South Central Division:      |           |               |               |            |
| Kentucky.....                |           | 31, 749       | 33, 548       | 31, 956    |
| Alabama.....                 | 17, 055   | 16, 834       | 6, 976        | 5, 011     |
| Mississippi.....             | 39, 392   | 37, 157       | 24, 571       | 24, 571    |
| Texas.....                   | 45, 500   | 59, 500       | 59, 500       | 24, 500    |
| Arkansas.....                |           | 23, 575       | 15, 800       | 20, 560    |
| Oklahoma.....                | 0         | 23, 000       | 0             | 8, 003     |
| North Central Division:      |           |               |               |            |
| Indiana.....                 | 42, 500   | 30, 000       | 80, 000       | 30, 000    |
| Michigan.....                | 66, 005   | 75, 500       | 54, 362       | 51, 775    |
| Iowa.....                    |           | 39, 989       | 22, 341       | 46, 278    |
| North Dakota.....            | 25, 000   | 0             | 55, 000       | 52, 000    |
| South Dakota.....            |           | 5, 600        | 22, 225       | 18, 200    |
| Kansas.....                  |           | 2, 706        | 77, 311       | 5, 430     |
| Western Division:            |           |               |               |            |
| Montana.....                 |           | 15, 000       |               | 2, 500     |
| Colorado.....                | 71, 000   | 65, 342       | 86, 300       | 78, 782    |
| New Mexico.....              | 6, 600    | 6, 100        | 12, 400       | 9, 140     |
| Utah.....                    | 108, 000  | 84, 000       | 24, 000       | 7, 500     |
| Washington.....              |           | 157, 000      | 67, 000       | 58, 962    |
| Oregon.....                  |           | 0             | 16, 364       | 0          |

TABLE 13.—*Total income of schools of technology from 1891-92 to 1894-95.*

| State or Territory.          | 1891-92. | 1892-93.    | 1893-94.    | 1894-95.    |
|------------------------------|----------|-------------|-------------|-------------|
| United States .....          |          | \$4,031,267 | \$4,322,851 | \$3,798,791 |
| North Atlantic Division..... |          | 1,481,136   | 1,690,359   | 1,318,966   |
| South Atlantic Division..... |          | 785,899     | 802,060     | 855,868     |
| South Central Division.....  |          | 477,214     | 432,550     | 390,935     |
| North Central Division.....  |          | 701,279     | 957,302     | 834,381     |
| Western Division .....       |          | 585,739     | 440,580     | 398,641     |
| North Atlantic Division:     |          |             |             |             |
| Maine.....                   | \$85,120 | 73,271      | 49,259      | 63,085      |
| New Hampshire.....           |          | 125,503     | 90,589      | 48,594      |
| Vermont.....                 |          | 4,850       | 4,700       | 4,850       |
| Massachusetts.....           |          | 358,949     | 489,705     | 356,130     |
| Rhode Island.....            |          | 38,318      | 128,665     | 87,500      |
| Connecticut.....             | 34,146   | 15,890      | 20,990      | 21,682      |
| New York.....                |          | 418,378     | 470,126     | 444,105     |
| New Jersey.....              |          | 79,962      | 73,395      | 94,020      |
| Pennsylvania.....            |          | 366,065     | 362,930     | 199,000     |
| South Atlantic Division:     |          |             |             |             |
| Delaware.....                | 17,600   | 5,260       | 4,775       | 4,853       |
| Maryland.....                |          | 400,367     | 422,650     | 452,786     |
| District of Columbia.....    |          |             |             | 4,346       |
| Virginia.....                | 115,465  | 104,335     | 137,500     | 124,201     |
| North Carolina.....          |          | 58,000      | 53,477      | 64,645      |
| South Carolina.....          |          | 157,560     | 122,715     | 144,450     |
| Georgia.....                 |          | 26,500      | 25,500      | 25,020      |
| Florida.....                 | 33,445   | 33,877      | 35,434      | 35,557      |
| South Central Division:      |          |             |             |             |
| Kentucky.....                |          | 80,782      | 85,792      | 77,290      |
| Alabama.....                 | 82,767   | 66,898      | 68,517      | 56,059      |
| Mississippi.....             | 82,609   | 100,675     | 81,996      | 81,826      |
| Texas.....                   | 152,121  | 107,280     | 103,530     | 69,280      |
| Arkansas.....                |          | 63,579      | 58,715      | 63,477      |
| Oklahoma.....                | 32,000   | 58,000      | 34,000      | 43,003      |
| North Central Division:      |          |             |             |             |
| Ohio.....                    |          | 72,000      | 66,000      | 75,000      |
| Indiana.....                 |          | 162,592     | 219,230     | 160,204     |
| Illinois.....                |          |             | 75,000      | 74,000      |
| Michigan.....                | 140,246  | 144,500     | 145,391     | 131,853     |
| Iowa.....                    |          | 154,829     | 148,736     | 173,877     |
| North Dakota.....            | 74,112   | 44,981      | 92,226      | 87,000      |
| South Dakota.....            | 61,980   | 48,119      | 64,040      | 55,863      |
| Kansas.....                  | 81,337   | 74,258      | 146,679     | 76,584      |
| Western Division:            |          |             |             |             |
| Montana.....                 |          | 33,000      | 35,289      | 39,000      |
| Colorado.....                | 134,758  | 113,131     | 130,530     | 122,374     |
| New Mexico.....              | 39,090   | 40,122      | 46,977      | 44,936      |
| Utah.....                    | 142,269  | 119,845     | 61,665      | 48,068      |
| Washington.....              |          | 218,250     | 102,196     | 96,404      |
| Oregon.....                  | 45,967   | 46,391      | 63,923      | 47,859      |
| California.....              |          | 15,000      |             |             |





## CHAPTER V.

### STATISTICAL REVIEW OF PROFESSIONAL SCHOOLS.

The statistics of theological schools are given more fully than those of either law or medicine. This is to be explained in part by the fact that medical and law schools so frequently constitute departments of universities, in the use of whose buildings, grounds, and funds they are allowed to participate; while according to the American idea of entire separation of church and state, theological schools can not form part of those universities at least which are supported by State governments. Although about one-third of the theological schools made no report as to the value of grounds and buildings and the amount of endowment funds, the remaining schools reported grounds and buildings to the value of \$12,057,747 and endowment funds to the amount of \$16,083,683, while benefactions for the one year aggregated over \$1,000,000. The endowment funds reported from medical schools aggregated only \$749,992, and although these figures are below the real amount, it nevertheless remains true that medical schools are practically without endowments. From law schools the amounts reported were so small that they were not tabulated. Although medical schools have such meager endowments they own much valuable property, frequently near the center of large cities. From the schools reported the value of property is \$8,130,422. Tables 5 to 20 show the increase in the number of schools and attendance for five years.

TABLE 1.—*General summary of statistics of professional and allied schools for 1894-95.*

| Class of schools.   | Schools. | Instructors. | Students. | Graduates. |
|---------------------|----------|--------------|-----------|------------|
| Theological.....    | 149      | 906          | 8,050     | 1,598      |
| Law.....            | 72       | 604          | a 8,950   | 2,717      |
| Medical.....        | 151      | 3,909        | b 22,887  | 4,827      |
| Dental.....         | 45       | 968          | 5,347     | 1,297      |
| Pharmaceutical..... | 39       | 317          | 3,859     | 1,067      |
| Veterinary.....     | 9        | 132          | 474       | 155        |
| Nurse training..... | 131      | .....        | 3,985     | 1,498      |
| Total .....         | 596      | 6,836        | 53,552    | 13,159     |

a 65 of these were women.

b 1,413 of these were women.

TABLE 2.—*Summary of statistics of schools of theology for 1894-95.*

| State.                     | Schools. | Instruct-<br>ors. |                       | Students.      |             |   | Value<br>of grounds and<br>buildings. | Endowment funds. | Benefactions received dur-<br>ing the year. | Bound volumes in libra-<br>ries. |
|----------------------------|----------|-------------------|-----------------------|----------------|-------------|---|---------------------------------------|------------------|---|----------------------------------|
|                            |          | Professors.       | Special or assistant. | In attendance. | Graduating. | Students having de-<br>gree in letters or<br>science. |                                       |                  |   |                                  |
| United States.....         | 149      | 689               | 217                   | 8,050          | 1,598       | 2,354   | \$12,057,747                          | \$16,083,683     | \$1,385,552                                 | 1,089,897                        |
| North Atlantic Division... | 49       | 263               | 95                    | 2,997          | 670         | 1,348   | 5,989,153                             | 8,008,615        | 531,466                                     | 624,238                          |
| South Atlantic Division... | 20       | 93                | 12                    | 957            | 167         | 88  | 1,507,500                             | 1,876,000        | 108,687                                     | 137,650                          |
| South Central Division...  | 17       | 59                | 27                    | 844            | 83          | 95  | 396,800                               | 979,579          | 12,700                                      | 53,650                           |
| North Central Division...  | 57       | 244               | 74                    | 3,172          | 663         | 806   | 3,899,294                             | 4,342,489        | 606,999                                     | 237,260                          |
| Western Division.....      | 6        | 24                | 9                     | 80             | 15          | 17  | 265,000                               | 877,000          | 125,700                                     | 37,099                           |
| North Atlantic Division:   |          |                   |                       |                |             |   |                                       |                  |   |                                  |
| Maine.....                 | 2        | 9                 | 3                     | 78             | 18          | 2   | 90,000                                | 350,000          | 20,000                                      | 3,860                            |
| Massachusetts.....         | 7        | 47                | 23                    | 431            | 105         | 263   | 748,553                               | 1,395,000        | 125,000                                     | 63,613                           |
| Connecticut.....           | 3        | 20                | 14                    | 163            | 43          | 93  | .....                                 | .....            | 30,000                                      | 66,500                           |
| New York.....              | 15       | 80                | 25                    | 933            | 174         | 323   | 2,729,000                             | 2,882,123        | 85,886                                      | 173,374                          |
| New Jersey.....            | 5        | 26                | 10                    | 501            | 140         | 332   | 1,541,150                             | 1,169,026        | 110,850                                     | 141,591                          |
| Pennsylvania.....          | 17       | 87                | 20                    | 891            | 190         | 335   | 880,450                               | 1,212,466        | 159,730                                     | 175,300                          |
| South Atlantic Division:   |          |                   |                       |                |             |   |                                       |                  |   |                                  |
| Maryland.....              | 4        | 35                | 0                     | 438            | 78          | 24  | 353,500                               | 4,000            | 2,117                                       | 61,400                           |
| District of Columbia...    | 3        | 12                | 6                     | 116            | 9           | .....   | 735,000                               | 545,000          | 100,000                                     | 17,550                           |
| Virginia.....              | 4        | 16                | 2                     | 168            | 36          | 1   | 130,000                               | 665,000          | 1,570                                       | 23,400                           |
| North Carolina.....        | 4        | 14                | 1                     | 84             | 11          | 16  | 104,000                               | .....            | .....                                       | 3,800                            |
| South Carolina.....        | 3        | 10                | 2                     | 52             | 22          | 35  | 40,000                                | 262,000          | 5,000                                       | 21,500                           |
| Georgia.....               | 2        | 6                 | 1                     | 99             | 11          | 12  | 145,000                               | 400,000          | .....                                       | 10,000                           |
| South Central Division:    |          |                   |                       |                |             |   |                                       |                  |   |                                  |
| Kentucky.....              | 4        | 20                | 13                    | 484            | 38          | 15  | 318,000                               | 865,000          | 0   | 25,000                           |
| Tennessee.....             | 8        | 32                | 9                     | 255            | 37          | 80  | 65,000                                | 106,579          | 3,500                                       | 20,300                           |
| Alabama.....               | 2        | 3                 | 1                     | 44             | 8           | 0   | 3,800                                 | 8,000            | 3,800                                       | 2,200                            |
| Louisiana.....             | 1        | 1                 | 0                     | 12             | 0           | .....   | .....                                 | .....            | .....                                       | .....                            |
| Texas.....                 | 2        | 3                 | 4                     | 49             | 0           | 0   | 10,030                                | 0                | 5,400                                       | 150                              |
| North Central Division:    |          |                   |                       |                |             |   |                                       |                  |   |                                  |
| Ohio.....                  | 13       | 55                | 21                    | 480            | 95          | 124   | 534,000                               | 800,000          | 68,110                                      | 76,959                           |
| Indiana.....               | 4        | 15                | 6                     | 154            | 30          | 4   | 23,000                                | 10,000           | 1,200                                       | 6,900                            |
| Illinois.....              | 13       | 67                | 27                    | 1,248          | 262         | 459   | 1,995,000                             | 2,544,635        | 79,269                                      | 86,392                           |
| Michigan.....              | 3        | 9                 | 1                     | 138            | 18          | 15  | 0                                     | 148,200          | 5,000                                       | 5,000                            |
| Wisconsin.....             | 4        | 23                | 0                     | 188            | 56          | 13  | 300,000                               | 100,000          | .....                                       | 5,000                            |
| Minnesota.....             | 7        | 31                | 3                     | 261            | 63          | 27  | 501,000                               | 693,710          | 429,000                                     | 14,900                           |
| Iowa.....                  | 5        | 17                | 7                     | 220            | 22          | 13  | 56,294                                | 40,944           | 3,729                                       | 4,800                            |
| Missouri.....              | 5        | 16                | 6                     | 429            | 103         | 151   | 475,000                               | 5,000            | 11,691                                      | 35,400                           |
| Nebraska.....              | 3        | 11                | 3                     | 54             | 14          | 0   | 15,000                                | 0                | 9,000                                       | 1,909                            |
| Western Division:          |          |                   |                       |                |             |   |                                       |                  |   |                                  |
| Colorado.....              | 2        | 7                 | 3                     | 20             | 7           | 5   | 65,000                                | 100,000          | 700   | 10,000                           |
| California.....            | 4        | 17                | 6                     | 60             | 8           | 12  | 200,000                               | 777,000          | 125,000                                     | 27,099                           |

TABLE 3.—*Summary of statistics of schools of law for 1894-95.*

| State.                       | Schools. | Instructors. |                       | Students.      |             | Bound volumes in libraries. |
|------------------------------|----------|--------------|-----------------------|----------------|-------------|-----------------------------|
|                              |          | Professors.  | Special or assistant. | In attendance. | Graduating. |                             |
| United States.....           | 72       | 257          | 247                   | 8,950          | 2,717       | 188,645                     |
| North Atlantic Division..... | 12       | 82           | 96                    | 2,805          | 713         | 118,424                     |
| South Atlantic Division..... | 16       | 64           | 21                    | 1,475          | 478         | 7,300                       |
| South Central Division.....  | 13       | 33           | 20                    | 496            | 201         | 9,250                       |
| North Central Division.....  | 25       | 138          | 85                    | 3,634          | 1,238       | 51,021                      |
| Western Division.....        | 6        | 40           | 25                    | 450            | 87          | 2,650                       |
| Massachusetts.....           | 2        | 16           | 18                    | 743            | 140         | 39,000                      |
| Connecticut.....             | 1        | 5            | 27                    | 195            | 86          | 9,000                       |
| New York.....                | 7        | 47           | 42                    | 1,612          | 409         | 58,183                      |
| Pennsylvania.....            | 2        | 14           | 9                     | 345            | 78          | 12,241                      |
| Maryland.....                | 2        | 5            | 10                    | 266            | 81          | .....                       |
| District of Columbia.....    | 4        | 29           | 9                     | 769            | 241         | 2,000                       |
| Virginia.....                | 3        | 7            | 0                     | 233            | 79          | 5,300                       |
| West Virginia.....           | 1        | 2            | 0                     | 62             | 28          | .....                       |
| North Carolina.....          | 2        | 6            | 0                     | 75             | 7           | .....                       |
| South Carolina.....          | 1        | 1            | 0                     | 18             | 6           | 0                           |
| Georgia.....                 | 3        | 14           | 2                     | 47             | 36          | 0                           |
| Kentucky.....                | 1        | 3            | 0                     | 38             | 19          | .....                       |
| Tennessee.....               | 6        | 11           | 14                    | 166            | 76          | 6,950                       |
| Alabama.....                 | 1        | 3            | 0                     | 20             | .....       | .....                       |
| Mississippi.....             | 1        | 1            | 4                     | 40             | 20          | 1,300                       |
| Louisiana.....               | 1        | 5            | .....                 | 73             | 44          | .....                       |
| Texas.....                   | 2        | 6            | 0                     | 128            | 31          | 1,000                       |
| Arkansas.....                | 1        | 4            | 2                     | 31             | 11          | .....                       |
| Ohio.....                    | 5        | 32           | 9                     | 371            | 163         | 8,450                       |
| Indiana.....                 | 4        | 12           | 6                     | 221            | 77          | 2,400                       |
| Illinois.....                | 6        | 27           | 16                    | 991            | 256         | 800                         |
| Michigan.....                | 2        | 16           | 18                    | 767            | 325         | 11,465                      |
| Wisconsin.....               | 1        | 7            | 2                     | 268            | 89          | .....                       |
| Minnesota.....               | 1        | 6            | 11                    | 315            | 84          | 3,400                       |
| Iowa.....                    | 2        | 9            | 8                     | 269            | 87          | 10,300                      |
| Missouri.....                | 2        | 15           | 5                     | 233            | 69          | 12,000                      |
| Nebraska.....                | 1        | 12           | 5                     | 99             | 41          | 206                         |
| Kansas.....                  | 1        | 2            | 5                     | 100            | 47          | 2,000                       |
| Colorado.....                | 2        | 19           | 22                    | 71             | 21          | 2,000                       |
| Oregon.....                  | 2        | 16           | 2                     | 87             | 27          | 150                         |
| California.....              | 2        | 5            | 1                     | 292            | 39          | 500                         |



TABLE 4.—Summary of statistics of schools of medicine, dentistry, pharmacy, and for nurses and veterinarians, for 1894-95.

|                               | Schools. | Professors and instructors. |                       | Students.     |                 |                   |             | Value of grounds and buildings. | Endowment funds. | Benefactions received during the year. | Volumes in libraries. |
|-------------------------------|----------|-----------------------------|-----------------------|---------------|-----------------|-------------------|-------------|---------------------------------|------------------|--|-----------------------|
|                               |          | Regular.                    | Special or assistant. | Men enrolled. | Women enrolled. | Total attendance. | Graduating. |                                 |                  |  |                       |
| United States .....           | 375      | 3,029                       | 2,297                 | 31,240        | 5,312           | 36,552            | 8,844       | \$3,180,422                     | \$749,992        | \$95,260                               | 85,659                |
| A.—BY CLASSES.                |          |                             |                       |               |                 |                   |             |                                 |                  |  |                       |
| Regular .....                 | 113      | 1,666                       | 1,072                 | 17,771        | 889             | 18,660            | 4,196       | 5,516,574                       | 703,800          | 94,260                                 | 56,071                |
| Homeopathic .....             | 20       | 321                         | 155                   | 1,522         | 353             | 1,875             | 463         | 1,482,260                       | 46,192           | 1,000                                  | 23,816                |
| Eclectic .....                | 9        | 142                         | 45                    | 649           | 83              | 732               | 151         | 544,000                         | 0                | 0                                      | 5,072                 |
| Physiological .....           | 2        | 43                          | 12                    | 73            | 14              | 87                | 17          | 8,000                           | .....            | 0                                      | .....                 |
| Graduate .....                | 7        | 182                         | 280                   | 1,459         | 74              | 1,533             | .....       | 779,588                         | 0                | 0                                      | 700                   |
| Total medical .....           | 151      | 2,345                       | 1,564                 | 21,474        | 1,413           | 22,887            | 4,827       | 8,130,422                       | 749,992          | 95,260                                 | 85,659                |
| Dental .....                  | 45       | 409                         | 559                   | 5,242         | 105             | 5,347             | 1,297       | .....                           | .....            | .....                                  | .....                 |
| Pharmaceutical .....          | 39       | 198                         | 119                   | 3,759         | 100             | 3,859             | 1,067       | .....                           | .....            | .....                                  | .....                 |
| Nurse training .....          | 131      | .....                       | .....                 | 291           | 3,694           | 3,985             | 1,498       | .....                           | .....            | .....                                  | .....                 |
| Veterinary .....              | 9        | 77                          | 55                    | 474           | 0               | 474               | 155         | .....                           | .....            | .....                                  | .....                 |
| B.—BY GEOGRAPHICAL DIVISIONS. |          |                             |                       |               |                 |                   |             |                                 |                  |  |                       |
| North Atlantic .....          | 120      | 648                         | 842                   | 10,968        | 2,993           | 13,961            | 3,506       | 3,326,162                       | 269,600          | 30,260                                 | 43,190                |
| South Atlantic .....          | 51       | 343                         | 266                   | 3,746         | 339             | 4,085             | 1,016       | 850,000                         | 332,000          | 1,000                                  | 7,350                 |
| South Central .....           | 30       | 263                         | 170                   | 3,089         | 38              | 3,127             | 749         | 909,000                         | 12,200           | 10,000                                 | 10,761                |
| North Central .....           | 148      | 1,570                       | 913                   | 12,429        | 1,705           | 14,134            | 3,275       | 2,440,260                       | 77,192           | 54,000                                 | 22,688                |
| Western .....                 | 20       | 205                         | 106                   | 1,068         | 237             | 1,245             | 298         | 605,099                         | 59,000           | 0                                      | 1,670                 |
| C.—BY STATES AND CLASSES.     |          |                             |                       |               |                 |                   |             |                                 |                  |  |                       |
| Regular medical.              |          |                             |                       |               |                 |                   |             |                                 |                  |  |                       |
| Maine .....                   | 2        | 23                          | 3                     | 141           | 0               | 141               | 23          | 15,000                          | 0                | 0                                      | .....                 |
| New Hampshire .....           | 1        | 8                           | 5                     | 139           | 0               | 139               | 30          | 30,000                          | 0                | 0                                      | 2,000                 |
| Vermont .....                 | 1        | 7                           | 18                    | 189           | 0               | 189               | 43          | .....                           | .....            | 5,000                                  | 0                     |
| Massachusetts .....           | 3        | 67                          | 52                    | 624           | 51              | 675               | 84          | .....                           | .....            | 0                                      | 2,050                 |
| Connecticut .....             | 1        | 12                          | 14                    | 100           | 0               | 100               | 13          | 75,000                          | 20,000           | 5,030                                  | .....                 |
| New York .....                | 9        | 129                         | 127                   | 2,429         | 117             | 2,546             | 556         | 950,574                         | 62,000           | 260                                    | 7,783                 |
| Pennsylvania .....            | 5        | 75                          | 102                   | 2,035         | 173             | 2,208             | 509         | 555,000                         | 147,600          | 20,000                                 | 12,285                |
| Maryland .....                | 6        | 62                          | 70                    | 1,212         | 50              | 1,262             | 260         | 567,000                         | 326,000          | 0                                      | 5,600                 |
| District of Columbia .....    | 4        | 72                          | 25                    | 451           | 18              | 469               | 95          | 75,000                          | .....            | .....                                  | .....                 |
| Virginia .....                | 3        | 33                          | 34                    | 450           | 0               | 450               | 91          | 100,000                         | .....            | .....                                  | .....                 |
| North Carolina .....          | 3        | 15                          | 3                     | 112           | 0               | 112               | 10          | .....                           | 6,000            | 1,000                                  | 1,200                 |
| South Carolina .....          | 1        | 8                           | 8                     | 80            | 0               | 80                | 25          | .....                           | .....            | .....                                  | .....                 |
| Georgia .....                 | 3        | 28                          | 14                    | 253           | 0               | 253               | 171         | 20,000                          | .....            | .....                                  | .....                 |
| Kentucky .....                | 4        | 39                          | 51                    | 922           | 0               | 922               | 157         | 299,000                         | 0                | 0                                      | 4,000                 |
| Tennessee .....               | 8        | 89                          | 47                    | 901           | 2               | 903               | 337         | 120,000                         | 10,000           | 0                                      | 5,340                 |
| Alabama .....                 | 2        | 18                          | 16                    | 149           | 0               | 149               | 17          | .....                           | 2,200            | 0                                      | 0                     |
| Louisiana .....               | 2        | 16                          | 13                    | 330           | 2               | 332               | 79          | 190,000                         | 0                | 10,000                                 | .....                 |
| Texas .....                   | 1        | 9                           | 4                     | 152           | 2               | 154               | 6           | 300,000                         | 0                | 0                                      | 1,421                 |
| Arkansas .....                | 1        | 15                          | 11                    | 86            | 0               | 86                | 14          | .....                           | 0                | 0                                      | .....                 |
| Ohio .....                    | 11       | 184                         | 82                    | 1,208         | 77              | 1,285             | 279         | 277,000                         | 0                | 0                                      | 6,600                 |
| Indiana .....                 | 3        | 59                          | 22                    | 266           | 19              | 285               | 69          | 20,000                          | 0                | 0                                      | 1,250                 |
| Illinois .....                | 4        | 106                         | 111                   | 1,365         | 119             | 1,484             | 338         | 448,000                         | 50,000           | 50,000                                 | 500                   |
| Michigan .....                | 3        | 53                          | 48                    | 766           | 0               | 766               | 168         | .....                           | .....            | .....                                  | .....                 |
| Wisconsin .....               | 1        | 19                          | 9                     | 34            | 0               | 34                | 3           | .....                           | 0                | 0                                      | 0                     |
| Minnesota .....               | 2        | 50                          | 7                     | 268           | 24              | 292               | 63          | 150,000                         | .....            | .....                                  | 1,600                 |
| Iowa .....                    | 6        | 81                          | 22                    | 602           | 56              | 658               | 120         | 130,000                         | 5,000            | 0                                      | 1,822                 |
| Missouri .....                | 12       | 294                         | 82                    | 1,677         | 39              | 1,716             | 363         | 555,000                         | 16,600           | 3,000                                  | 1,600                 |
| Nebraska .....                | 2        | 47                          | 12                    | 128           | 14              | 142               | 34          | 35,000                          | 0                | 0                                      | 200                   |
| Kansas .....                  | 1        | 16                          | 6                     | 47            | 16              | 63                | 8           | .....                           | 0                | 0                                      | 50                    |
| Colorado .....                | 3        | 49                          | 22                    | 139           | 39              | 178               | 45          | 20,000                          | .....            | 0                                      | 360                   |
| Oregon .....                  | 2        | 25                          | 15                    | 64            | 18              | 82                | 12          | 30,000                          | 0                | 0                                      | 600                   |
| California .....              | 3        | 48                          | 17                    | 352           | 53              | 405               | 109         | 525,000                         | 59,000           | 0                                      | 270                   |
| North Atlantic Division ..... | 22       | 321                         | 321                   | 5,657         | 341             | 5,998             | 1,323       | 1,655,574                       | 229,600          | 30,260                                 | 24,118                |
| South Atlantic Division ..... | 20       | 218                         | 154                   | 2,658         | 68              | 2,726             | 652         | 762,000                         | 332,000          | 1,000                                  | 6,800                 |
| South Central Division .....  | 18       | 186                         | 142                   | 2,540         | 6               | 2,546             | 610         | 909,000                         | 12,200           | 10,000                                 | 10,761                |
| North Central Division .....  | 45       | 819                         | 401                   | 6,361         | 364             | 6,725             | 1,445       | 1,615,000                       | 71,000           | 53,000                                 | 13,222                |
| Western Division .....        | 8        | 122                         | 54                    | 555           | 110             | 665               | 166         | 575,000                         | 59,000           | 0                                      | 1,170                 |
| United States .....           | 113      | 1,666                       | 1,072                 | 17,771        | 889             | 18,660            | 4,196       | 5,516,574                       | 703,800          | 94,260                                 | 56,071                |

TABLE 4.—Summary of statistics of schools of medicine, dentistry, pharmacy, and for nurses and veterinarians, for 1894-95—Continued.

|                                     | Schools. | Professors and instructors. |                       | Students.     |                 |                   |             | Value of grounds and buildings. | Endowment funds. | Benefactions received during the year. | Volumes in libraries. |
|-------------------------------------|----------|-----------------------------|-----------------------|---------------|-----------------|-------------------|-------------|---------------------------------|------------------|--|-----------------------|
|                                     |          | Regular.                    | Special or assistant. | Men enrolled. | Women enrolled. | Total attendance. | Graduating. |                                 |                  |  |                       |
| C.—BY STATES AND CLASSES—continued. |          |                             |                       |               |                 |                   |             |                                 |                  |  |                       |
| Homeopathic.                        |          |                             |                       |               |                 |                   |             |                                 |                  |  |                       |
| Massachusetts .....                 | 1        | 24                          | 19                    | 113           | 57              | 170               | 32          | \$200,000                       | \$40,000         | 0                                      | 3,300                 |
| New York .....                      | 2        | 41                          | 19                    | 130           | 44              | 174               | 60          | 290,000                         | .....            | 0                                      | 3,500                 |
| Pennsylvania .....                  | 1        | 14                          | 15                    | 256           | 0               | 256               | 61          | 500,000                         | .....            | .....                                  | 8,000                 |
| Maryland .....                      | 1        | 13                          | 8                     | 24            | 7               | 31                | 13          | 28,000                          | .....            | 0                                      | 550                   |
| District of Columbia .....          | 1        | 9                           | 2                     | 17            | 0               | 17                | 9           | .....                           | .....            | .....                                  | .....                 |
| Kentucky .....                      | 1        | 18                          | 0                     | 17            | 8               | 25                | 2           | .....                           | .....            | .....                                  | 0                     |
| Ohio .....                          | 2        | 37                          | 13                    | 195           | 35              | 230               | 46          | 90,000                          | 5,000            | \$1,000                                | 300                   |
| Illinois .....                      | 4        | 82                          | 58                    | 537           | 133             | 670               | 185         | 300,000                         | .....            | .....                                  | 1,100                 |
| Michigan .....                      | 1        | 5                           | 1                     | 16            | 2               | 18                | 1           | 39,260                          | .....            | .....                                  | 6,000                 |
| Minnesota .....                     | 1        | 14                          | .....                 | 25            | 6               | 31                | 2           | .....                           | .....            | .....                                  | .....                 |
| Iowa .....                          | 1        | 5                           | 6                     | 54            | 16              | 70                | 16          | 20,000                          | 0                | 0                                      | 416                   |
| Missouri .....                      | 2        | 28                          | 7                     | 97            | 27              | 124               | 22          | 10,000                          | 1,192            | 0                                      | 150                   |
| Colorado .....                      | 1        | 16                          | 4                     | 18            | 10              | 28                | 1           | .....                           | .....            | .....                                  | .....                 |
| California .....                    | 1        | 15                          | 3                     | 23            | 8               | 31                | 13          | 5,000                           | 0                | 0                                      | 500                   |
| North Atlantic Division .....       | 4        | 79                          | 53                    | 499           | 101             | 600               | 153         | 990,000                         | 40,000           | 0                                      | 14,800                |
| South Atlantic Division .....       | 2        | 22                          | 10                    | 41            | 7               | 48                | 22          | 28,000                          | .....            | .....                                  | 550                   |
| South Central Division .....        | 1        | 18                          | 0                     | 17            | 8               | 25                | 2           | .....                           | .....            | .....                                  | 0                     |
| North Central Division .....        | 11       | 171                         | 85                    | 924           | 219             | 1,143             | 272         | 450,260                         | 6,192            | 1,000                                  | 7,966                 |
| Western Division .....              | 2        | 31                          | 7                     | 41            | 18              | 59                | 14          | 5,000                           | 0                | 0                                      | 500                   |
| United States .....                 | 20       | 321                         | 155                   | 1,522         | 353             | 1,875             | 463         | 1,482,200                       | 46,192           | 1,000                                  | 23,816                |
| Eclectic.                           |          |                             |                       |               |                 |                   |             |                                 |                  |  |                       |
| New York .....                      | 1        | 20                          | 15                    | 63            | 14              | 77                | 14          | 46,000                          | .....            | .....                                  | 3,572                 |
| Georgia .....                       | 1        | 11                          | 7                     | 62            | 2               | 64                | 28          | 60,000                          | 0                | 0                                      | 0                     |
| Ohio .....                          | 2        | 27                          | 7                     | 209           | 15              | 224               | 46          | 30,000                          | 0                | 0                                      | 800                   |
| Illinois .....                      | 1        | 22                          | 6                     | 97            | 12              | 109               | 24          | 40,000                          | 0                | 0                                      | 500                   |
| Indiana .....                       | 1        | 20                          | 3                     | 60            | 12              | 72                | 4           | .....                           | .....            | 0                                      | 0                     |
| Missouri .....                      | 1        | 13                          | 2                     | 52            | 8               | 60                | 13          | 18,000                          | 0                | 0                                      | 290                   |
| Nebraska .....                      | 1        | 11                          | 5                     | 43            | 7               | 50                | 8           | 125,000                         | .....            | .....                                  | 0                     |
| California .....                    | 1        | 18                          | 0                     | 63            | 13              | 76                | 14          | 25,000                          | 0                | 0                                      | .....                 |
| North Atlantic Division .....       | 1        | 20                          | 15                    | 63            | 14              | 77                | 14          | 46,000                          | .....            | .....                                  | 3,572                 |
| South Atlantic Division .....       | 1        | 11                          | 7                     | 62            | 2               | 64                | 28          | 60,000                          | 0                | 0                                      | 0                     |
| North Central Division .....        | 6        | 93                          | 23                    | 461           | 54              | 515               | 95          | 213,000                         | 0                | 0                                      | 1,500                 |
| Western Division .....              | 1        | 18                          | 0                     | 63            | 13              | 76                | 14          | 25,000                          | 0                | 0                                      | .....                 |
| United States .....                 | 9        | 142                         | 45                    | 649           | 83              | 732               | 151         | 344,000                         | 0                | 0                                      | 5,072                 |
| Graduate.                           |          |                             |                       |               |                 |                   |             |                                 |                  |  |                       |
| New York .....                      | 2        | 72                          | 182                   | 799           | 34              | 833               | .....       | 624,588                         | 0                | 0                                      | 700                   |
| Pennsylvania .....                  | 2        | 36                          | 45                    | 110           | 28              | 138               | .....       | 10,000                          | .....            | .....                                  | .....                 |
| Illinois .....                      | 3        | 74                          | 53                    | 550           | 12              | 562               | .....       | 145,000                         | 0                | 0                                      | 0                     |
| North Atlantic Division .....       | 4        | 108                         | 227                   | 909           | 62              | 971               | .....       | 634,588                         | 0                | 0                                      | 700                   |
| North Central Division .....        | 3        | 74                          | 53                    | 550           | 12              | 562               | .....       | 145,000                         | 0                | 0                                      | 0                     |
| United States .....                 | 7        | 182                         | 280                   | 1,459         | 74              | 1,533             | .....       | 779,588                         | 0                | 0                                      | 700                   |
| Dentistry.                          |          |                             |                       |               |                 |                   |             |                                 |                  |  |                       |
| Massachusetts .....                 | 2        | 12                          | 51                    | 246           | 6               | 252               | 59          | .....                           | .....            | .....                                  | .....                 |
| New York .....                      | 2        | 21                          | 48                    | 517           | 3               | 520               | 111         | .....                           | .....            | .....                                  | .....                 |
| Pennsylvania .....                  | 3        | 18                          | 60                    | 929           | 25              | 954               | 328         | .....                           | .....            | .....                                  | .....                 |

TABLE 4.—Summary of statistics of schools of medicine, dentistry, pharmacy, and for nurses and veterinarians, for 1894-95—Continued.

| C.—BY STATES AND CLASSES—<br>continued. | Schools. | Professors<br>and in-<br>structors. |                            | Students.        |                    |                      | Value<br>of<br>grounds<br>and<br>buildings. | Endowment<br>funds. | Benefactions received dur-<br>ing the year. | Volumes in libraries. |
|---|----------|-------------------------------------|----------------------------|------------------|--------------------|----------------------|---|---------------------|---|-----------------------|
|   |          | Regular.                            | Special or assist.<br>ant. | Men<br>enrolled. | Women<br>enrolled. | Total<br>attendance. |   |                     |   |                       |
| Dentistry—Continued.                    |          |                                     |                            |                  |                    |                      |   |                     |   |                       |
| Maryland .....                          | 2        | 14                                  | 43                         | 350              | 0                  | 350                  | 90  |                     |   |                       |
| District of Columbia .....              | 4        | 29                                  | 22                         | 122              | 1                  | 123                  | 26  |                     |   |                       |
| Virginia .....                          | 1        | 9                                   | 3                          | 31               | 0                  | 31                   | 3   |                     |   |                       |
| Georgia .....                           | 2        | 12                                  | 16                         | 188              | 0                  | 188                  | 27  |                     |   |                       |
| Kentucky .....                          | 1        | 8                                   | 6                          | 130              | 0                  | 130                  | 25  |                     |   |                       |
| Tennessee .....                         | 3        | 24                                  | 9                          | 210              | 2                  | 212                  | 55  |                     |   |                       |
| Alabama .....                           | 1        | 7                                   | 5                          | 24               | 0                  | 24                   | 1   |                     |   |                       |
| Ohio .....                              | 5        | 36                                  | 29                         | 343              | 6                  | 349                  | 85  |                     |   |                       |
| Indiana .....                           | 1        | 12                                  | 10                         | 124              | 3                  | 127                  | 29  |                     |   |                       |
| Illinois .....                          | 6        | 94                                  | 83                         | 894              | 27                 | 921                  | 220   |                     |   |                       |
| Michigan .....                          | 2        | 15                                  | 20                         | 248              | 5                  | 253                  | 65  |                     |   |                       |
| Wisconsin .....                         | 1        | 10                                  | 14                         | 35               | 0                  | 35                   | 3   |                     |   |                       |
| Minnesota .....                         | 1        | 4                                   | 14                         | 76               | 4                  | 80                   | 12  |                     |   |                       |
| Iowa .....                              | 1        | 15                                  | 8                          | 158              | 5                  | 163                  | 25  |                     |   |                       |
| Missouri .....                          | 4        | 47                                  | 83                         | 425              | 5                  | 430                  | 93  |                     |   |                       |
| Colorado .....                          | 1        | 8                                   | 1                          | 19               | 5                  | 24                   | 2   |                     |   |                       |
| Washington .....                        | 1        | 7                                   | 5                          | 12               | 0                  | 12                   | 0   |                     |   |                       |
| California .....                        | 1        | 7                                   | 29                         | 161              | 8                  | 169                  | 38  |                     |   |                       |
| North Atlantic Division .....           | 7        | 51                                  | 159                        | 1,692            | 34                 | 1,726                | 498   |                     |   |                       |
| South Atlantic Division .....           | 9        | 64                                  | 84                         | 691              | 1                  | 692                  | 146   |                     |   |                       |
| South Central Division .....            | 5        | 39                                  | 20                         | 364              | 2                  | 366                  | 81  |                     |   |                       |
| North Central Division .....            | 21       | 233                                 | 261                        | 2,303            | 55                 | 2,358                | 532   |                     |   |                       |
| Western Division .....                  | 3        | 22                                  | 35                         | 192              | 13                 | 205                  | 40  |                     |   |                       |
| United States .....                     | 45       | 409                                 | 559                        | 5,242            | 105                | 5,347                | 1,297                                       |                     |   |                       |
| Pharmacy.                               |          |                                     |                            |                  |                    |                      |   |                     |   |                       |
| Massachusetts .....                     | 1        | 5                                   | 6                          | 244              | 11                 | 255                  | 23  |                     |   |                       |
| New York .....                          | 4        | 19                                  | 17                         | 559              | 7                  | 566                  | 175   |                     |   |                       |
| Pennsylvania .....                      | 2        | 10                                  | 7                          | 821              | 24                 | 845                  | 222   |                     |   |                       |
| Maryland .....                          | 1        | 3                                   | 1                          | 119              | 0                  | 119                  | 49  |                     |   |                       |
| District of Columbia .....              | 2        | 7                                   | 3                          | 96               | 2                  | 98                   | 11  |                     |   |                       |
| Virginia .....                          | 1        | 4                                   | 3                          | 29               | 0                  | 29                   | 5   |                     |   |                       |
| North Carolina .....                    | 1        | 2                                   | 0                          | 14               | 2                  | 16                   | 5   |                     |   |                       |
| Georgia .....                           | 2        | 3                                   | 1                          | 11               | 0                  | 11                   | 4   |                     |   |                       |
| Kentucky .....                          | 1        | 5                                   | 3                          | 65               | 0                  | 65                   | 19  |                     |   |                       |
| Tennessee .....                         | 2        | 9                                   | 3                          | 43               | 3                  | 46                   | 13  |                     |   |                       |
| Louisiana .....                         | 1        | 3                                   | 2                          | 31               | 5                  | 36                   | 14  |                     |   |                       |
| Texas .....                             | 1        | 3                                   | 0                          | 29               | 0                  | 29                   | 3   |                     |   |                       |
| Ohio .....                              | 4        | 26                                  | 11                         | 374              | 9                  | 383                  | 129   |                     |   |                       |
| Indiana .....                           | 1        | 6                                   | 4                          | 86               | 3                  | 89                   | 35  |                     |   |                       |
| Illinois .....                          | 3        | 13                                  | 10                         | 506              | 5                  | 511                  | 197   |                     |   |                       |
| Michigan .....                          | 2        | 13                                  | 6                          | 107              | 1                  | 108                  | 29  |                     |   |                       |
| Wisconsin .....                         | 1        | 15                                  | 10                         | 37               | 5                  | 42                   | 8   |                     |   |                       |
| Minnesota .....                         | 1        | 16                                  | 6                          | 39               | 3                  | 42                   | 11  |                     |   |                       |
| Iowa .....                              | 2        | 11                                  | 7                          | 82               | 5                  | 87                   | 9   |                     |   |                       |
| Missouri .....                          | 2        | 10                                  | 5                          | 252              | 4                  | 256                  | 72  |                     |   |                       |
| Kansas .....                            | 1        | 0                                   | 4                          | 58               | 4                  | 62                   | 8   |                     |   |                       |
| Colorado .....                          | 1        | 4                                   | 3                          | 27               | 0                  | 27                   | 4   |                     |   |                       |
| Washington .....                        | 1        | 2                                   | 2                          | 23               | 4                  | 27                   | 0   |                     |   |                       |
| California .....                        | 1        | 6                                   | 5                          | 107              | 3                  | 110                  | 22  |                     |   |                       |
| North Atlantic Division .....           | 7        | 34                                  | 30                         | 1,624            | 42                 | 1,666                | 420   |                     |   |                       |
| South Atlantic Division .....           | 7        | 19                                  | 8                          | 269              | 4                  | 273                  | 74  |                     |   |                       |
| South Central Division .....            | 5        | 20                                  | 8                          | 163              | 8                  | 176                  | 49  |                     |   |                       |
| North Central Division .....            | 17       | 113                                 | 63                         | 1,541            | 39                 | 1,580                | 498   |                     |   |                       |
| Western Division .....                  | 3        | 12                                  | 10                         | 157              | 7                  | 164                  | 26  |                     |   |                       |
| United States .....                     | 39       | 198                                 | 119                        | 3,759            | 100                | 3,859                | 1,067                                       |                     |   |                       |

TABLE 4.—*Summary of statistics of schools of medicine, dentistry, pharmacy, and for nurses and veterinarians, for 1894-95—Continued.*

|                                     | Schools. | Professors and instructors. |                       | Students.     |                 |                   | Value of grounds and buildings. | Endowment funds. | Benefactions received during the year. | Volumes in libraries |
|-------------------------------------|----------|-----------------------------|-----------------------|---------------|-----------------|-------------------|---------------------------------|------------------|--|----------------------|
|                                     |          | Regular.                    | Special or assistant. | Men enrolled. | Women enrolled. | Total attendance. |                                 |                  |  |                      |
| C.—BY STATES AND CLASSES—continued. |          |                             |                       |               |                 |                   |                                 |                  |  |                      |
| <i>Nurse training.</i>              |          |                             |                       |               |                 |                   |                                 |                  |  |                      |
| Maine.....                          | 1        | .....                       | .....                 | 0             | 53              | 53                | 21                              | .....            | .....                                  | .....                |
| New Hampshire.....                  | 1        | .....                       | .....                 | 0             | 4               | 4                 | 0                               | .....            | .....                                  | .....                |
| Vermont.....                        | 1        | .....                       | .....                 | 0             | 43              | 43                | 7                               | .....            | .....                                  | .....                |
| Massachusetts.....                  | 14       | .....                       | .....                 | 35            | 515             | 550               | 203                             | .....            | .....                                  | .....                |
| Rhode Island.....                   | 1        | .....                       | .....                 | 6             | 36              | 42                | 12                              | .....            | .....                                  | .....                |
| Connecticut.....                    | 2        | .....                       | .....                 | 0             | 123             | 123               | 42                              | .....            | .....                                  | .....                |
| New York.....                       | 33       | .....                       | .....                 | 137           | 863             | 1,000             | 420                             | .....            | .....                                  | .....                |
| New Jersey.....                     | 5        | .....                       | .....                 | 0             | 144             | 144               | 55                              | .....            | .....                                  | .....                |
| Pennsylvania.....                   | 19       | .....                       | .....                 | 16            | 618             | 634               | 253                             | .....            | .....                                  | .....                |
| Maryland.....                       | 3        | .....                       | .....                 | 0             | 105             | 105               | 43                              | .....            | .....                                  | .....                |
| District of Columbia.....           | 5        | .....                       | .....                 | 1             | 120             | 121               | 33                              | .....            | .....                                  | .....                |
| Virginia.....                       | 2        | .....                       | .....                 | 0             | 26              | 26                | 3                               | .....            | .....                                  | .....                |
| Georgia.....                        | 1        | .....                       | .....                 | 0             | 6               | 6                 | 0                               | .....            | .....                                  | .....                |
| Texas.....                          | 1        | .....                       | .....                 | 0             | 14              | 14                | 7                               | .....            | .....                                  | .....                |
| Ohio.....                           | 5        | .....                       | .....                 | 4             | 150             | 154               | 35                              | .....            | .....                                  | .....                |
| Indiana.....                        | 1        | .....                       | .....                 | 0             | 18              | 18                | 9                               | .....            | .....                                  | .....                |
| Illinois.....                       | 12       | .....                       | .....                 | 18            | 342             | 360               | 141                             | .....            | .....                                  | .....                |
| Michigan.....                       | 6        | .....                       | .....                 | 4             | 124             | 128               | 56                              | .....            | .....                                  | .....                |
| Wisconsin.....                      | 2        | .....                       | .....                 | 0             | 53              | 53                | 15                              | .....            | .....                                  | .....                |
| Minnesota.....                      | 6        | .....                       | .....                 | 46            | 152             | 198               | 63                              | .....            | .....                                  | .....                |
| Iowa.....                           | 2        | .....                       | .....                 | 24            | 36              | 60                | 21                              | .....            | .....                                  | .....                |
| Missouri.....                       | 5        | .....                       | .....                 | 0             | 73              | 73                | 21                              | .....            | .....                                  | .....                |
| Oregon.....                         | 1        | .....                       | .....                 | 0             | 21              | 21                | 8                               | .....            | .....                                  | .....                |
| California.....                     | 2        | .....                       | .....                 | 0             | 55              | 55                | 30                              | .....            | .....                                  | .....                |
| North Atlantic Division.....        | 77       | .....                       | .....                 | 194           | 2,399           | 2,593             | 1,013                           | .....            | .....                                  | .....                |
| South Atlantic Division.....        | 11       | .....                       | .....                 | 1             | 257             | 258               | 79                              | .....            | .....                                  | .....                |
| South Central Division.....         | 1        | .....                       | .....                 | 0             | 14              | 14                | 7                               | .....            | .....                                  | .....                |
| North Central Division.....         | 39       | .....                       | .....                 | 96            | 948             | 1,044             | 361                             | .....            | .....                                  | .....                |
| Western Division.....               | 3        | .....                       | .....                 | 0             | 76              | 76                | 38                              | .....            | .....                                  | .....                |
| United States.....                  | 131      | .....                       | .....                 | 291           | 3,694           | 3,985             | 1,498                           | .....            | .....                                  | .....                |



TABLE 5.—Statistics of professional and allied schools for five years.

| Class.              | Schools. |          |          |          |          | Instructors. |          |          |          |          |
|---------------------|----------|----------|----------|----------|----------|--------------|----------|----------|----------|----------|
|                     | 1890-91. | 1891-92. | 1892-93. | 1893-94. | 1894-95. | 1890-91.     | 1891-92. | 1892-93. | 1893-94. | 1894-95. |
| Theological.....    | 142      | 141      | 142      | 147      | 149      | 734          | 855      | 862      | 963      | 906      |
| Law.....            | 54       | 58       | 63       | 67       | 72       | 406          | 487      | 594      | 621      | 604      |
| MEDICAL.            |          |          |          |          |          |              |          |          |          |          |
| Preparatory.....    |          | 2        | 2        | 2        |          |              | 17       | 17       | 17       | .....    |
| Regular.....        | 95       | 93       | 94       | 109      | 113      | 2,147        | 2,423    | 2,494    | 3,077    | 2,738    |
| Homeopathic.....    | 14       | 14       | 16       | 19       | 20       | 311          | 299      | 390      | 478      | 476      |
| Eclectic.....       | 9        | 8        | 10       | 9        | 9        | 127          | 132      | 171      | 161      | 187      |
| Physiomedical.....  | 2        | 2        | 2        | 3        | 2        | 34           | 39       | 34       | 62       | 46       |
| Graduate.....       | 9        | 8        | 8        | 10       | 7        | 293          | 413      | 384      | 400      | 462      |
| Total.....          | 129      | 127      | 132      | 152      | 151      | 2,912        | 3,323    | 3,490    | 4,195    | 3,909    |
| Dental.....         | 27       | 26       | 29       | 35       | 45       | 518          | 546      | 513      | 794      | 963      |
| Pharmaceutical..... | 30       | 29       | 31       | 35       | 39       | 194          | 216      | 264      | 283      | 317      |
| Nurse training..... | 34       | 36       | 47       | 66       | 131      |              |          |          |          |          |
| Veterinary.....     | 9        | 8        | 7        | 8        | 9        | 95           | 105      | 114      | 118      | 132      |

TABLE 6.—Statistics of students and graduates of professional and allied schools for five years.

| Class.              | Students. |          |          |          |          | Graduates. |          |          |          |          |
|---------------------|-----------|----------|----------|----------|----------|------------|----------|----------|----------|----------|
|                     | 1890-91.  | 1891-92. | 1892-93. | 1893-94. | 1894-95. | 1890-91.   | 1891-92. | 1892-93. | 1893-94. | 1894-95. |
| Theological.....    | 7,328     | 7,493    | 7,836    | 7,658    | 8,050    | 1,324      | 1,370    | 1,502    | 1,462    | 1,593    |
| Law.....            | 5,258     | 6,073    | 6,968    | 7,211    | 8,950    | 1,727      | 1,976    | 2,471    | 2,454    | 2,717    |
| MEDICAL.            |           |          |          |          |          |            |          |          |          |          |
| Preparatory.....    |           | 47       | 48       | 44       |          |            | 0        | 0        | 0        | .....    |
| Regular.....        | 14,538    | 15,534   | 16,130   | 17,601   | 18,660   | 4,303      | 4,277    | 4,324    | 4,486    | 4,196    |
| Homeopathic.....    | 1,220     | 1,272    | 1,445    | 1,669    | 1,875    | 392        | 339      | 394      | 399      | 463      |
| Eclectic.....       | 780       | 570      | 773      | 803      | 732      | 213        | 164      | 178      | 205      | 151      |
| Physiomedical.....  | 59        | 43       | 64       | 92       | 87       | 23         | 2        | 15       | 30       | 17       |
| Graduate.....       | 1,563     | 1,201    | 1,292    | 1,596    | 1,533    |            |          |          | 13       | .....    |
| Total.....          | 18,160    | 18,472   | 19,752   | 21,802   | 22,887   | 4,931      | 4,782    | 4,911    | 5,123    | 4,827    |
| Dental.....         | 3,016     | 2,985    | 2,852    | 4,152    | 5,347    | 1,012      | 1,282    | 1,507    | 877      | 1,297    |
| Pharmaceutical..... | 2,884     | 3,133    | 3,394    | 3,638    | 3,859    | 733        | 796      | 827      | 988      | 1,067    |
| Nurse training..... | 1,613     | 1,862    | 2,338    | 2,710    | 3,985    | 527        | 582      | 786      | 970      | 1,498    |
| Veterinary.....     | 513       | 533      | 564      | 554      | 474      | 176        | 171      | 201      | 171      | 155      |

a Year of adoption of three years' course.

TABLE 7.—*Statistics of schools of theology for five years.*

| State.                       | Schools. |          |          |          |          | Instructors. |          |          |          |          |
|------------------------------|----------|----------|----------|----------|----------|--------------|----------|----------|----------|----------|
|                              | 1890-91. | 1891-92. | 1892-93. | 1893-94. | 1894-95. | 1890-91.     | 1891-92. | 1892-93. | 1893-94. | 1894-95. |
| United States.....           | 142      | 141      | 142      | 147      | 149      | 734          | 855      | 862      | 963      | 906      |
| North Atlantic Division..... | 41       | 45       | 46       | 47       | 49       | 299          | 325      | 368      | 400      | 264      |
| South Atlantic Division..... | 23       | 20       | 19       | 21       | 20       | 107          | 135      | 114      | 108      | 105      |
| South Central Division.....  | 16       | 15       | 15       | 16       | 17       | 61           | 80       | 77       | 90       | 86       |
| North Central Division.....  | 57       | 56       | 56       | 56       | 57       | 250          | 296      | 278      | 325      | 313      |
| Western Division.....        | 5        | 5        | 6        | 7        | 6        | 17           | 19       | 25       | 40       | 33       |
| North Atlantic Division:     |          |          |          |          |          |              |          |          |          |          |
| Maine.....                   | 2        | 2        | 2        | 2        | 2        | 9            | 11       | 12       | 12       | 12       |
| Massachusetts.....           | 7        | 7        | 7        | 7        | 7        | 59           | 65       | 67       | 82       | 79       |
| Connecticut.....             | 2        | 3        | 3        | 3        | 3        | 29           | 34       | 47       | 47       | 34       |
| New York.....                | 9        | 11       | 12       | 13       | 15       | 72           | 86       | 91       | 112      | 105      |
| New Jersey.....              | 5        | 5        | 5        | 5        | 5        | 29           | 29       | 36       | 40       | 36       |
| Pennsylvania.....            | 16       | 17       | 17       | 17       | 17       | 101          | 100      | 115      | 107      | 107      |
| South Atlantic Division:     |          |          |          |          |          |              |          |          |          |          |
| Maryland.....                | 5        | 4        | 4        | 5        | 4        | 38           | 36       | 38       | 37       | 35       |
| District of Columbia.....    | 3        | 3        | 3        | 4        | 3        | 25           | 23       | 24       | 26       | 18       |
| Virginia.....                | 3        | 3        | 3        | 3        | 4        | 17           | 21       | 16       | 15       | 18       |
| North Carolina.....          | 4        | 3        | 3        | 3        | 4        | 9            | 14       | 11       | 9        | 15       |
| South Carolina.....          | 6        | 5        | 4        | 4        | 3        | 11           | 32       | 16       | 10       | 12       |
| Georgia.....                 | 2        | 2        | 2        | 2        | 2        | 7            | 9        | 9        | 11       | 7        |
| South Central Division:      |          |          |          |          |          |              |          |          |          |          |
| Kentucky.....                | 3        | 3        | 3        | 4        | 4        | 15           | 19       | 17       | 32       | 23       |
| Tennessee.....               | 7        | 5        | 7        | 7        | 8        | 32           | 40       | 47       | 45       | 41       |
| Alabama.....                 | 2        | 2        | 2        | 2        | 2        | 3            | 5        | 5        | 4        | 4        |
| Louisiana.....               | 3        | 3        | 2        | 1        | 1        | 7            | 8        | 3        | 1        | 1        |
| Texas.....                   | 1        | 2        | 1        | 2        | 2        | 4            | 8        | 5        | 8        | 7        |
| North Central Division:      |          |          |          |          |          |              |          |          |          |          |
| Ohio.....                    | 13       | 13       | 13       | 13       | 13       | 50           | 63       | 67       | 86       | 76       |
| Indiana.....                 | 3        | 3        | 3        | 3        | 4        | 30           | 20       | 11       | 14       | 21       |
| Illinois.....                | 16       | 15       | 15       | 14       | 13       | 75           | 98       | 98       | 115      | 94       |
| Michigan.....                | 3        | 3        | 3        | 3        | 3        | 9            | 11       | 9        | 12       | 10       |
| Wisconsin.....               | 4        | 5        | 4        | 4        | 4        | 24           | 30       | 24       | 23       | 23       |
| Minnesota.....               | 5        | 3        | 6        | 6        | 7        | 26           | 19       | 27       | 23       | 34       |
| Iowa.....                    | 6        | 7        | 7        | 6        | 5        | 17           | 21       | 22       | 22       | 24       |
| Missouri.....                | 5        | 5        | 4        | 5        | 5        | 14           | 24       | 17       | 18       | 22       |
| Nebraska.....                | 2        | 2        | 1        | 2        | 3        | 5            | 5        | 3        | 12       | 14       |
| Western Division:            |          |          |          |          |          |              |          |          |          |          |
| Colorado.....                | 1        | 1        | 2        | 2        | 2        | 1            | 1        | 9        | 10       | 10       |
| Oregon.....                  | 1        | 1        | 1        | 1        | .....    | 3            | 4        | 3        | 6        | .....    |
| California.....              | 3        | 3        | 3        | 4        | 4        | 13           | 14       | 13       | 24       | 23       |

TABLE 8.—*Statistics of students and graduates of schools of theology for five years.*

| State.                       | Students. |          |          |          |          | Graduates. |          |          |          |          |
|------------------------------|-----------|----------|----------|----------|----------|------------|----------|----------|----------|----------|
|                              | 1890-91.  | 1891-92. | 1892-93. | 1893-94. | 1894-95. | 1890-91.   | 1891-92. | 1892-93. | 1893-94. | 1894-95. |
| United States.....           | 7,328     | 7,493    | 7,836    | 7,658    | 8,050    | 1,324      | 1,370    | 1,502    | 1,462    | 1,598    |
| North Atlantic Division..... | 2,600     | 2,655    | 2,754    | 2,865    | 2,997    | 555        | 594      | 614      | 654      | 670      |
| South Atlantic Division..... | 993       | 908      | 824      | 917      | 957      | 130        | 138      | 117      | 158      | 167      |
| South Central Division.....  | 661       | 728      | 776      | 777      | 844      | 67         | 88       | 117      | 99       | 83       |
| North Central Division.....  | 3,008     | 3,144    | 3,353    | 3,034    | 3,172    | 553        | 543      | 641      | 545      | 663      |
| Western Division.....        | 66        | 58       | 69       | 65       | 80       | 19         | 7        | 13       | 6        | 15       |
| North Atlantic Division:     |           |          |          |          |          |            |          |          |          |          |
| Maine.....                   | 54        | 62       | 64       | 65       | 78       | 9          | 14       | 13       | 10       | 18       |
| Massachusetts.....           | 413       | 450      | 436      | 444      | 431      | 77         | 105      | 72       | 107      | 105      |
| Connecticut.....             | 208       | 162      | 176      | 198      | 163      | 62         | 46       | 52       | 54       | 43       |
| New York.....                | 719       | 757      | 808      | 855      | 933      | 159        | 140      | 169      | 177      | 174      |
| New Jersey.....              | 381       | 392      | 435      | 466      | 501      | 104        | 98       | 101      | 121      | 140      |
| Pennsylvania.....            | 825       | 832      | 835      | 837      | 891      | 144        | 191      | 202      | 185      | 190      |
| South Atlantic Division:     |           |          |          |          |          |            |          |          |          |          |
| Maryland.....                | 356       | 344      | 355      | 390      | 438      | 47         | 43       | 45       | 75       | 78       |
| District of Columbia.....    | 113       | 120      | 169      | 83       | 116      | 11         | 14       | 8        | 5        | 9        |
| Virginia.....                | 196       | 191      | 176      | 184      | 168      | 36         | 29       | 33       | 42       | 36       |
| North Carolina.....          | 89        | 72       | 58       | 70       | 84       | 1          | 0        | 0        | 8        | 11       |
| South Carolina.....          | 94        | 87       | 97       | 97       | 52       | 19         | 43       | 22       | 16       | 22       |
| Georgia.....                 | 145       | 94       | 89       | 93       | 99       | 16         | 9        | 9        | 12       | 11       |
| South Central Division:      |           |          |          |          |          |            |          |          |          |          |
| Kentucky.....                | 317       | 416      | 463      | 465      | 484      | 28         | 58       | 64       | 59       | 38       |
| Tennessee.....               | 239       | 165      | 204      | 223      | 255      | 33         | 22       | 43       | 32       | 37       |
| Alabama.....                 | 33        | 45       | 50       | 38       | 44       | 5          | 6        | 5        | 5        | 8        |
| Louisiana.....               | 47        | 51       | 26       | 10       | 12       | 0          | 0        | 0        | 1        | 0        |
| Texas.....                   | 25        | 51       | 33       | 41       | 49       | 1          | 2        | 0        | 2        | 0        |
| North Central Division:      |           |          |          |          |          |            |          |          |          |          |
| Ohio.....                    | 433       | 464      | 462      | 438      | 480      | 94         | 84       | 114      | 93       | 95       |
| Indiana.....                 | 328       | 168      | 183      | 148      | 154      | 12         | 24       | 18       | 19       | 30       |
| Illinois.....                | 1,073     | 1,287    | 1,400    | 1,245    | 1,248    | 234        | 229      | 258      | 249      | 262      |
| Michigan.....                | 92        | 67       | 70       | 118      | 138      | 14         | 7        | 8        | 4        | 18       |
| Wisconsin.....               | 339       | 355      | 330      | 314      | 188      | 53         | 42       | 53       | 39       | 56       |
| Minnesota.....               | 171       | 120      | 237      | 183      | 261      | 50         | 22       | 64       | 47       | 63       |
| Iowa.....                    | 182       | 297      | 317      | 209      | 220      | 27         | 35       | 41       | 17       | 22       |
| Missouri.....                | 366       | 366      | 339      | 348      | 429      | 66         | 98       | 85       | 69       | 103      |
| Nebraska.....                | 24        | 20       | 15       | 31       | 54       | 3          | 2        | 0        | 8        | 14       |
| Western Division:            |           |          |          |          |          |            |          |          |          |          |
| Colorado.....                | 2         | 3        | 16       | 30       | 20       | 2          | 0        | 1        | 3        | 7        |
| Oregon.....                  | 11        | 0        | 2        | 4        | -----    | 0          | 0        | 0        | -----    | -----    |
| California.....              | 53        | 55       | 51       | 31       | 60       | 17         | 7        | 12       | 3        | 8        |

TABLE 9.—*Statistics of schools of law for five years.*

| State.                       | Schools. |          |          |          |          | Instructors. |          |          |          |          |
|------------------------------|----------|----------|----------|----------|----------|--------------|----------|----------|----------|----------|
|                              | 1890-91. | 1891-92. | 1892-93. | 1893-94. | 1894-95. | 1890-91.     | 1891-92. | 1892-93. | 1893-94. | 1894-95. |
| United States.....           | 54       | 58       | 63       | 67       | 72       | 406          | 487      | 594      | 621      | 604      |
| North Atlantic Division..... | 10       | 10       | 12       | 12       | 12       | 144          | 146      | 186      | 190      | 178      |
| South Atlantic Division..... | 13       | 15       | 14       | 16       | 16       | 64           | 76       | 76       | 91       | 85       |
| South Central Division.....  | 10       | 10       | 11       | 11       | 13       | 31           | 47       | 51       | 45       | 53       |
| North Central Division.....  | 18       | 19       | 21       | 22       | 25       | 155          | 183      | 205      | 228      | 223      |
| Western Division.....        | 3        | 4        | 5        | 6        | 6        | 12           | 35       | 76       | 67       | 65       |
| North Atlantic Division:     |          |          |          |          |          |              |          |          |          |          |
| Massachusetts.....           | 2        | 2        | 2        | 2        | 2        | 32           | 35       | 34       | 35       | 34       |
| Connecticut.....             | 1        | 1        | 1        | 1        | 1        | 25           | 25       | 32       | 32       | 32       |
| New York.....                | 5        | 5        | 7        | 7        | 7        | 68           | 67       | 99       | 103      | 89       |
| Pennsylvania.....            | 2        | 2        | 2        | 2        | 2        | 19           | 19       | 21       | 20       | 23       |
| South Atlantic Division:     |          |          |          |          |          |              |          |          |          |          |
| Maryland.....                | 1        | 2        | 2        | 2        | 2        | 7            | 7        | 7        | 14       | 15       |
| District of Columbia.....    | 4        | 4        | 4        | 4        | 4        | 34           | 36       | 40       | 42       | 38       |
| Virginia.....                | 2        | 2        | 2        | 3        | 3        | 5            | 5        | 5        | 7        | 7        |
| West Virginia.....           | 1        | 1        | 1        | 1        | 1        | 2            | 2        | 2        | 2        | 2        |
| North Carolina.....          | 1        | 1        | 2        | 2        | 2        | 3            | 3        | 5        | 6        | 6        |
| South Carolina.....          | 2        | 2        | 1        | 1        | 1        | 2            | 5        | 1        | 1        | 1        |
| Georgia.....                 | 2        | 3        | 2        | 3        | 3        | 11           | 18       | 16       | 19       | 16       |
| South Central Division:      |          |          |          |          |          |              |          |          |          |          |
| Kentucky.....                | 1        | 1        | 1        | 1        | 1        | 3            | 3        | 3        | 3        | 3        |
| Tennessee.....               | 4        | 4        | 5        | 5        | 6        | 10           | 22       | 26       | 19       | 25       |
| Alabama.....                 | 1        | 1        | 1        | 1        | 1        | 3            | 3        | 3        | 3        | 3        |
| Mississippi.....             | 1        | 1        | 1        | 1        | 1        | 5            | 5        | 5        | 5        | 5        |
| Louisiana.....               | 1        | 1        | 1        | 1        | 1        | 5            | 5        | 5        | 5        | 5        |
| Texas.....                   | 1        | 1        | 1        | 1        | 2        | 2            | 2        | 4        | 4        | 6        |
| Arkansas.....                | 1        | 1        | 1        | 1        | 1        | 3            | 7        | 5        | 6        | 6        |
| North Central Division:      |          |          |          |          |          |              |          |          |          |          |
| Ohio.....                    | 1        | 2        | 2        | 5        | 5        | 5            | 25       | 18       | 40       | 41       |
| Indiana.....                 | 3        | 3        | 3        | 2        | 4        | 18           | 22       | 20       | 11       | 18       |
| Illinois.....                | 4        | 4        | 5        | 5        | 6        | 47           | 38       | 36       | 43       | 43       |
| Michigan.....                | 1        | 1        | 2        | 2        | 2        | 16           | 22       | 35       | 39       | 34       |
| Wisconsin.....               | 1        | 1        | 1        | 1        | 1        | 9            | 11       | 10       | 11       | 9        |
| Minnesota.....               | 1        | 1        | 1        | 1        | 1        | 17           | 16       | 15       | 18       | 17       |
| Iowa.....                    | 2        | 2        | 2        | 2        | 2        | 14           | 21       | 27       | 23       | 17       |
| Missouri.....                | 2        | 2        | 2        | 2        | 2        | 15           | 22       | 24       | 23       | 20       |
| Nebraska.....                | 1        | 1        | 1        | 1        | 1        | .....        | .....    | 13       | 13       | 17       |
| Kansas.....                  | 2        | 2        | 2        | 1        | 1        | 14           | 6        | 7        | 7        | 7        |
| Western Division:            |          |          |          |          |          |              |          |          |          |          |
| Colorado.....                | .....    | 1        | 2        | 2        | 2        | .....        | 14       | 57       | 43       | 41       |
| Oregon.....                  | 2        | 2        | 2        | 2        | 2        | 8            | 15       | 16       | 18       | 18       |
| California.....              | 1        | 1        | 1        | 2        | 2        | 4            | 6        | 3        | 6        | 6        |



TABLE 10.—*Statistics of students and graduates of law schools for five years.*

| State.                       | Students. |          |          |          |          | Graduates. |          |          |          |          |
|------------------------------|-----------|----------|----------|----------|----------|------------|----------|----------|----------|----------|
|                              | 1890-91.  | 1891-92. | 1892-93. | 1893-94. | 1894-95. | 1890-91.   | 1891-92. | 1892-93. | 1893-94. | 1894-95. |
| United States.....           | 5,252     | 6,073    | 6,968    | 7,311    | 8,950    | 1,727      | 1,976    | 2,471    | 2,454    | 2,717    |
| North Atlantic Division..... | 1,784     | 2,158    | 2,533    | 2,597    | 2,895    | 390        | 471      | 710      | 684      | 713      |
| South Atlantic Division..... | 1,153     | 1,263    | 1,294    | 1,372    | 1,475    | 395        | 493      | 484      | 484      | 478      |
| South Central Division.....  | 369       | 354      | 394      | 445      | 496      | 166        | 177      | 192      | 208      | 201      |
| North Central Division.....  | 1,815     | 2,146    | 2,477    | 2,514    | 3,634    | 744        | 800      | 1,031    | 995      | 1,238    |
| Western Division.....        | 126       | 152      | 270      | 383      | 450      | 32         | 35       | 54       | 83       | 87       |
| North Atlantic Division:     |           |          |          |          |          |            |          |          |          |          |
| Massachusetts.....           | 474       | 576      | 613      | 611      | 743      | 86         | 117      | 114      | 135      | 140      |
| Connecticut.....             | 116       | 155      | 171      | 188      | 195      | 55         | 43       | 81       | 72       | 86       |
| New York.....                | 1,601     | 1,220    | 1,481    | 1,508    | 1,612    | 199        | 248      | 443      | 413      | 409      |
| Pennsylvania.....            | 193       | 207      | 268      | 290      | 345      | 50         | 63       | 72       | 64       | 78       |
| South Atlantic Division:     |           |          |          |          |          |            |          |          |          |          |
| Maryland.....                | 100       | 100      | 192      | 232      | 266      | 22         | 22       | 64       | 73       | 81       |
| District of Columbia.....    | 747       | 840      | 742      | 739      | 769      | 287        | 376      | 295      | 251      | 241      |
| Virginia.....                | 100       | 197      | 212      | 230      | 238      | 54         | 46       | 53       | 60       | 79       |
| West Virginia.....           | 25        | 26       | 22       | 47       | 62       | .....      | 19       | 13       | 23       | 23       |
| North Carolina.....          | 35        | 55       | 61       | 76       | 75       | 4          | 7        | 10       | 46       | 7        |
| South Carolina.....          | 42        | 31       | 15       | 6        | 18       | 11         | 10       | 7        | 6        | 6        |
| Georgia.....                 | 19        | 14       | 50       | 42       | 47       | 17         | 13       | 42       | 25       | 36       |
| South Central Division:      |           |          |          |          |          |            |          |          |          |          |
| Kentucky.....                | 29        | 40       | 40       | 48       | 38       | 12         | 17       | 20       | 26       | 19       |
| Tennessee.....               | 124       | 126      | 142      | 145      | 166      | 72         | 80       | 76       | 74       | 76       |
| Alabama.....                 | 30        | 19       | 30       | 18       | 20       | 20         | 14       | 14       | 16       | .....    |
| Mississippi.....             | 23        | 21       | 23       | 20       | 40       | 10         | 13       | 13       | 12       | 20       |
| Louisiana.....               | 57        | 48       | 57       | 75       | 73       | 25         | 20       | 25       | 34       | 44       |
| Texas.....                   | 76        | 92       | 77       | 103      | 123      | 25         | 31       | 34       | 35       | 31       |
| Arkansas.....                | 30        | 8        | 25       | 31       | 31       | 1          | 2        | 10       | 11       | 11       |
| North Central Division:      |           |          |          |          |          |            |          |          |          |          |
| Ohio.....                    | 153       | 224      | 234      | 360      | 371      | 87         | 100      | 116      | 144      | 163      |
| Indiana.....                 | 132       | 144      | 149      | 112      | 221      | 40         | 45       | 44       | 35       | 77       |
| Illinois.....                | 224       | 338      | 414      | 410      | 991      | 89         | 93       | 156      | 124      | 256      |
| Michigan.....                | 587       | 648      | 701      | 663      | 767      | 279        | 290      | 362      | 300      | 325      |
| Wisconsin.....               | 118       | 127      | 166      | 163      | 263      | 62         | 52       | 89       | 81       | 89       |
| Minnesota.....               | 176       | 242      | 277      | 315      | 315      | 49         | 56       | 83       | 103      | 84       |
| Iowa.....                    | 198       | 208      | 254      | 166      | 269      | 63         | 85       | 86       | 116      | 87       |
| Missouri.....                | 156       | 136      | 144      | 176      | 233      | 46         | 50       | 25       | 25       | 69       |
| Nebraska.....                | .....     | .....    | 53       | 65       | 99       | .....      | .....    | 23       | 25       | 41       |
| Kansas.....                  | 71        | 79       | 85       | 79       | 100      | 29         | 29       | 42       | 42       | 47       |
| Western Division:            |           |          |          |          |          |            |          |          |          |          |
| Colorado.....                | .....     | .....    | 78       | 95       | 71       | .....      | .....    | 6        | 25       | 21       |
| Oregon.....                  | 42        | 60       | 71       | 83       | 87       | 11         | 20       | 25       | 28       | 27       |
| California.....              | 84        | 92       | 121      | 205      | 292      | 21         | 15       | 23       | 30       | 39       |

TABLE 11.—Statistics of regular schools of medicine for five years.

| State.                       | Schools. |          |          |          |          | Instructors. |          |          |          |          |
|------------------------------|----------|----------|----------|----------|----------|--------------|----------|----------|----------|----------|
|                              | 1890-91. | 1891-92. | 1892-93. | 1893-94. | 1894-95. | 1890-91.     | 1891-92. | 1892-93. | 1893-94. | 1894-95. |
| United States.....           | 95       | 93       | 94       | 100      | 113      | 2, 147       | 2, 423   | 2, 494   | 3, 077   | 2, 738   |
| North Atlantic Division..... | 20       | 20       | 20       | 21       | 22       | 689          | 815      | 705      | 906      | 642      |
| South Atlantic Division..... | 17       | 17       | 17       | 19       | 20       | 283          | 294      | 307      | 406      | 372      |
| South Central Division.....  | 14       | 14       | 14       | 17       | 18       | 204          | 241      | 294      | 350      | 328      |
| North Central Division.....  | 36       | 34       | 35       | 44       | 45       | 812          | 890      | 1, 007   | 1, 214   | 1, 220   |
| Western Division.....        | 8        | 8        | 8        | 8        | 8        | 159          | 183      | 181      | 201      | 176      |
| North Atlantic Division:     |          |          |          |          |          |              |          |          |          |          |
| Maine.....                   | 1        | 1        | 1        | 1        | 2        | 8            | 8        | 13       | 13       | 26       |
| New Hampshire.....           | 1        | 1        | 1        | 1        | 1        | 14           | 15       | 14       | 13       | 13       |
| Vermont.....                 | 1        | 1        | 1        | 1        | 1        | 21           | 26       | 23       | 25       | 25       |
| Massachusetts.....           | 2        | 2        | 2        | 3        | 3        | 90           | 84       | 52       | 151      | 119      |
| Connecticut.....             | 1        | 1        | 1        | 1        | 1        | 20           | 24       | 26       | 26       | 26       |
| New York.....                | 9        | 9        | 9        | 9        | 9        | 315          | 400      | 332      | 392      | 256      |
| Pennsylvania.....            | 5        | 5        | 5        | 5        | 5        | 221          | 258      | 245      | 286      | 177      |
| South Atlantic Division:     |          |          |          |          |          |              |          |          |          |          |
| Maryland.....                | 5        | 5        | 5        | 6        | 6        | 91           | 116      | 105      | 161      | 132      |
| District of Columbia.....    | 4        | 4        | 4        | 4        | 4        | 90           | 89       | 106      | 112      | 97       |
| Virginia.....                | 2        | 2        | 2        | 3        | 3        | 30           | 27       | 34       | 56       | 67       |
| North Carolina.....          | 1        | 1        | 1        | 2        | 3        | 7            | 8        | 8        | 16       | 18       |
| South Carolina.....          | 1        | 1        | 1        | 1        | 1        | 9            | 16       | 16       | 16       | 16       |
| Georgia.....                 | 4        | 4        | 4        | 3        | 3        | 56           | 38       | 38       | 45       | 42       |
| South Central Division:      |          |          |          |          |          |              |          |          |          |          |
| Kentucky.....                | 4        | 4        | 4        | 4        | 4        | 49           | 80       | 82       | 94       | 90       |
| Tennessee.....               | 5        | 5        | 5        | 8        | 8        | 78           | 81       | 117      | 153      | 136      |
| Alabama.....                 | 1        | 1        | 1        | 1        | 2        | 14           | 14       | 20       | 22       | 34       |
| Louisiana.....               | 2        | 2        | 2        | 2        | 2        | 31           | 29       | 44       | 42       | 29       |
| Texas.....                   | 1        | 1        | 1        | 1        | 1        | 15           | 14       | 16       | 16       | 13       |
| Arkansas.....                | 1        | 1        | 1        | 1        | 1        | 17           | 23       | 15       | 23       | 26       |
| North Central Division:      |          |          |          |          |          |              |          |          |          |          |
| Ohio.....                    | 10       | 8        | 8        | 10       | 11       | 187          | 144      | 190      | 240      | 266      |
| Indiana.....                 | 3        | 3        | 3        | 3        | 3        | 59           | 62       | 64       | 93       | 81       |
| Illinois.....                | 4        | 4        | 4        | 4        | 4        | 157          | 195      | 209      | 192      | 217      |
| Michigan.....                | 3        | 3        | 3        | 3        | 3        | 76           | 133      | 106      | 106      | 101      |
| Wisconsin.....               |          |          |          | 1        | 1        |              |          |          | 23       | 28       |
| Minnesota.....               | 2        | 2        | 2        | 2        | 2        | 44           | 49       | 55       | 69       | 57       |
| Iowa.....                    | 3        | 3        | 3        | 6        | 6        | 50           | 51       | 52       | 103      | 103      |
| Missouri.....                | 9        | 9        | 10       | 12       | 12       | 201          | 211      | 284      | 313      | 286      |
| Nebraska.....                | 2        | 2        | 2        | 2        | 2        | 38           | 45       | 47       | 53       | 59       |
| Kansas.....                  |          |          |          | 1        | 1        |              |          |          | 22       | 22       |
| Western Division:            |          |          |          |          |          |              |          |          |          |          |
| Colorado.....                | 3        | 3        | 3        | 3        | 3        | 55           | 66       | 70       | 81       | 71       |
| Oregon.....                  | 2        | 2        | 2        | 2        | 2        | 38           | 44       | 38       | 40       | 40       |
| California.....              | 3        | 3        | 3        | 3        | 3        | 66           | 73       | 73       | 80       | 65       |

TABLE 12.—Statistics of students and graduates of regular schools of medicine for five years.

| State.                       | Students. |          |          |          |          | Graduates. |          |          |          |          |
|------------------------------|-----------|----------|----------|----------|----------|------------|----------|----------|----------|----------|
|                              | 1890-91.  | 1891-92. | 1892-93. | 1893-94. | 1894-95. | 1890-91.   | 1891-92. | 1892-93. | 1893-94. | 1894-95. |
| United States.....           | 14, 538   | 15, 334  | 16, 130  | 17, 601  | 18, 669  | 4, 303     | 4, 277   | 4, 324   | 4, 486   | 4, 196   |
| North Atlantic Division..... | 5, 092    | 5, 035   | 5, 182   | 5, 622   | 5, 998   | 1, 373     | 1, 280   | 1, 246   | 1, 266   | 1, 323   |
| South Atlantic Division..... | 2, 005    | 2, 244   | 2, 192   | 2, 464   | 2, 726   | 604        | 613      | 658      | 599      | 652      |
| South Central Division.....  | 2, 802    | 3, 094   | 3, 048   | 3, 084   | 2, 546   | 983        | 1, 043   | 1, 089   | 1, 271   | 610      |
| North Central Division.....  | 4, 239    | 4, 507   | 5, 229   | 5, 843   | 6, 725   | 1, 257     | 1, 247   | 1, 238   | 1, 241   | 1, 445   |
| Western Division.....        | 400       | 454      | 479      | 588      | 665      | 86         | 94       | 93       | 109      | 166      |
| North Atlantic Division:     |           |          |          |          |          |            |          |          |          |          |
| Maine.....                   | 99        | 99       | 97       | 116      | 141      | 29         | 29       | 21       | 26       | 28       |
| New Hampshire.....           | 88        | 104      | 112      | 135      | 139      | 34         | 25       | 31       | 29       | 30       |
| Vermont.....                 | 212       | 195      | 198      | 190      | 189      | 49         | 50       | 51       | 54       | 43       |
| Massachusetts.....           | 395       | 479      | 545      | 688      | 675      | 85         | 109      | 98       | 166      | 84       |
| Connecticut.....             | 63        | 72       | 76       | 78       | 100      | 15         | 22       | 16       | 15       | 13       |
| New York.....                | 2, 593    | 2, 328   | 2, 287   | 2, 349   | 2, 546   | 718        | 604      | 571      | 486      | 556      |
| Pennsylvania.....            | 1, 642    | 1, 758   | 1, 867   | 2, 066   | 2, 208   | 443        | 441      | 458      | 490      | 569      |
| South Atlantic Division:     |           |          |          |          |          |            |          |          |          |          |
| Maryland.....                | 943       | 1, 186   | 1, 111   | 1, 183   | 1, 262   | 288        | 343      | 359      | 266      | 260      |
| District of Columbia.....    | 424       | 402      | 423      | 486      | 469      | 92         | 72       | 82       | 106      | 95       |
| Virginia.....                | 151       | 203      | 222      | 322      | 450      | 28         | 41       | 53       | 66       | 91       |
| North Carolina.....          | 48        | 62       | 49       | 99       | 112      | 6          | 8        | 10       | 14       | 10       |
| South Carolina.....          | 56        | 50       | 70       | 70       | 80       | 18         | 12       | 12       | 19       | 25       |
| Georgia.....                 | 383       | 341      | 317      | 304      | 353      | 172        | 137      | 142      | 128      | 171      |
| South Central Division:      |           |          |          |          |          |            |          |          |          |          |
| Kentucky.....                | 1, 205    | 1, 332   | 1, 342   | 1, 295   | 922      | 453        | 495      | 539      | 622      | 157      |
| Tennessee.....               | 958       | 1, 099   | 1, 060   | 1, 106   | 903      | 364        | 384      | 398      | 488      | 337      |
| Alabama.....                 | 148       | 131      | 139      | 102      | 149      | 39         | 35       | 33       | 34       | 17       |
| Louisiana.....               | 399       | 396      | 407      | 382      | 332      | 105        | 101      | 96       | 107      | 79       |
| Texas.....                   | .....     | 24       | 25       | 127      | 154      | .....      | 3        | 2        | 6        | 6        |
| Arkansas.....                | 92        | 112      | 75       | 72       | 86       | 22         | 25       | 21       | 14       | 14       |
| North Central Division:      |           |          |          |          |          |            |          |          |          |          |
| Ohio.....                    | 937       | 701      | 867      | 991      | 1, 285   | 325        | 201      | 182      | 195      | 279      |
| Indiana.....                 | 190       | 246      | 238      | 261      | 285      | 69         | 79       | 46       | 73       | 69       |
| Illinois.....                | 1, 125    | 1, 254   | 1, 386   | 1, 415   | 1, 484   | 321        | 290      | 347      | 358      | 338      |
| Michigan.....                | 625       | 739      | 707      | 798      | 766      | 169        | 202      | 144      | 179      | 168      |
| Wisconsin.....               | .....     | .....    | .....    | 30       | 34       | .....      | .....    | .....    | 2        | 3        |
| Minnesota.....               | 159       | 170      | 203      | 253      | 292      | 21         | 28       | 43       | 45       | 63       |
| Iowa.....                    | 266       | 307      | 346      | 579      | 658      | 56         | 73       | 53       | 116      | 120      |
| Missouri.....                | 880       | 1, 008   | 1, 394   | 1, 350   | 1, 716   | 286        | 360      | 411      | 247      | 363      |
| Nebraska.....                | 57        | 82       | 88       | 121      | 142      | 10         | 14       | 12       | 19       | 34       |
| Kansas.....                  | .....     | .....    | .....    | 45       | 63       | .....      | .....    | .....    | 7        | 8        |
| Western Division:            |           |          |          |          |          |            |          |          |          |          |
| Colorado.....                | 109       | 103      | 108      | 150      | 178      | 21         | 18       | 24       | 28       | 45       |
| Oregon.....                  | 45        | 44       | 58       | 62       | 82       | 7          | 11       | 10       | 12       | 12       |
| California.....              | 246       | 307      | 313      | 376      | 405      | 58         | 65       | 59       | 69       | 109      |

TABLE 13.—*Statistics of homeopathic schools of medicine for five years.*

| State.                       | Schools. |          |          |          |          | Instructors. |          |          |          |          |
|------------------------------|----------|----------|----------|----------|----------|--------------|----------|----------|----------|----------|
|                              | 1890-91. | 1891-92. | 1892-93. | 1893-94. | 1894-95. | 1890-91.     | 1891-92. | 1892-93. | 1893-94. | 1894-95. |
| United States .....          | 14       | 14       | 16       | 19       | 20       | 311          | 299      | 390      | 478      | 476      |
| North Atlantic Division..... | 4        | 4        | 4        | 4        | 4        | 122          | 132      | 135      | 134      | 132      |
| South Atlantic Division..... |          |          | 1        | 2        | 2        |              |          | 29       | 39       | 32       |
| South Central Division.....  |          |          |          | 1        | 1        |              |          |          | 18       | 18       |
| North Central Division.....  | 9        | 9        | 10       | 11       | 11       | 168          | 148      | 203      | 261      | 256      |
| Western Division .....       | 1        | 1        | 1        | 1        | 2        | 21           | 19       | 23       | 26       | 38       |
| North Atlantic Division:     |          |          |          |          |          |              |          |          |          |          |
| Massachusetts.....           | 1        | 1        | 1        | 1        | 1        | 37           | 41       | 39       | 39       | 43       |
| New York.....                | 2        | 2        | 2        | 2        | 2        | 61           | 66       | 71       | 69       | 60       |
| Pennsylvania.....            | 1        | 1        | 1        | 1        | 1        | 24           | 25       | 25       | 26       | 29       |
| South Atlantic Division:     |          |          |          |          |          |              |          |          |          |          |
| Maryland.....                |          |          | 1        | 1        | 1        |              |          | 29       | 29       | 21       |
| District of Columbia.....    |          |          |          | 1        | 1        |              |          |          | 10       | 11       |
| South Central Division:      |          |          |          |          |          |              |          |          |          |          |
| Kentucky.....                |          |          |          | 1        | 1        |              |          |          | 18       | 18       |
| North Central Division:      |          |          |          |          |          |              |          |          |          |          |
| Ohio.....                    | 2        | 2        | 2        | 2        | 2        | 35           | 44       | 43       | 43       | 50       |
| Illinois.....                | 2        | 2        | 3        | 4        | 4        | 56           | 26       | 92       | 132      | 140      |
| Michigan.....                | 1        | 1        | 1        | 1        | 1        | 18           | 10       | 10       | 10       | 6        |
| Minnesota.....               | 1        | 1        | 1        | 1        | 1        | 14           | 20       | 14       | 14       | 14       |
| Iowa.....                    | 1        | 1        | 1        | 1        | 1        | 8            | 9        | 11       | 15       | 11       |
| Missouri.....                | 2        | 2        | 2        | 2        | 2        | 37           | 39       | 33       | 47       | 35       |
| Western Division:            |          |          |          |          |          |              |          |          |          |          |
| Colorado.....                |          |          |          |          | 1        |              |          |          |          | 20       |
| California.....              | 1        | 1        | 1        | 1        | 1        | 21           | 19       | 23       | 26       | 18       |

TABLE 14.—*Statistics of students and graduates of homeopathic schools of medicine.*

| State.                       | Students. |          |          |          |          | Graduates. |          |          |          |          |
|------------------------------|-----------|----------|----------|----------|----------|------------|----------|----------|----------|----------|
|                              | 1890-91.  | 1891-92. | 1892-93. | 1893-94. | 1894-95. | 1890-91.   | 1891-92. | 1892-93. | 1893-94. | 1894-95. |
| United States.....           | 1,220     | 1,272    | 1,445    | 1,666    | 1,875    | 392        | 339      | 394      | 399      | 463      |
| North Atlantic Division..... | 516       | 549      | 580      | 595      | 600      | 140        | 131      | 154      | 140      | 153      |
| South Atlantic Division..... |           |          | 29       | 44       | 48       |            |          | 2        | 19       | 22       |
| South Central Division.....  |           |          |          | 17       | 25       |            |          |          | 2        | 2        |
| North Central Division.....  | 672       | 692      | 789      | 958      | 1,143    | 248        | 197      | 230      | 231      | 272      |
| Western Division .....       | 32        | 31       | 47       | 52       | 59       | 4          | 11       | 8        | 7        | 14       |
| North Atlantic Division:     |           |          |          |          |          |            |          |          |          |          |
| Massachusetts.....           | 109       | 133      | 156      | 131      | 170      | 27         | 24       | 41       | 15       | 32       |
| New York.....                | 186       | 169      | 171      | 183      | 174      | 53         | 43       | 36       | 57       | 60       |
| Pennsylvania.....            | 221       | 247      | 253      | 281      | 256      | 60         | 64       | 77       | 68       | 61       |
| South Atlantic Division:     |           |          |          |          |          |            |          |          |          |          |
| Maryland.....                |           |          | 29       | 29       | 31       |            |          | 2        | 12       | 13       |
| District of Columbia.....    |           |          |          | 15       | 17       |            |          |          | 7        | 9        |
| South Central Division:      |           |          |          |          |          |            |          |          |          |          |
| Kentucky.....                |           |          |          | 17       | 25       |            |          |          | 2        | 2        |
| North Central Division:      |           |          |          |          |          |            |          |          |          |          |
| Ohio.....                    | 124       | 146      | 154      | 178      | 230      | 37         | 45       | 40       | 47       | 46       |
| Illinois.....                | 353       | 317      | 279      | 575      | 670      | 150        | 115      | 122      | 137      | 185      |
| Michigan.....                | 71        | 82       | 74       | 25       | 18       | 18         | 18       | 20       | 9        | 1        |
| Minnesota.....               | 16        | 24       | 24       | 17       | 31       | 4          | 4        | 4        | 2        | 2        |
| Iowa.....                    | 44        | 57       | 67       | 66       | 70       | 17         | 3        | 23       | 15       | 16       |
| Missouri.....                | 64        | 66       | 91       | 97       | 124      | 22         | 12       | 21       | 21       | 22       |
| Western Division:            |           |          |          |          |          |            |          |          |          |          |
| Colorado.....                |           |          |          |          | 28       |            |          |          |          | 1        |
| California.....              | 32        | 31       | 47       | 52       | 31       | 4          | 11       | 8        | 7        | 13       |



TABLE 15.—*Statistics of schools of dentistry for five years.*

| State.                       | Schools. |          |          |          |          | Instructors. |          |          |          |          |
|------------------------------|----------|----------|----------|----------|----------|--------------|----------|----------|----------|----------|
|                              | 1890-91. | 1891-92. | 1892-93. | 1893-94. | 1894-95. | 1890-91.     | 1891-92. | 1892-93. | 1893-94. | 1894-95. |
| United States.....           | 27       | 26       | 29       | 35       | 45       | 518          | 546      | 513      | 794      | 968      |
| North Atlantic Division..... | 6        | 6        | 6        | 6        | 7        | 162          | 139      | 135      | 193      | 210      |
| South Atlantic Division..... | 5        | 5        | 5        | 8        | 9        | 84           | 85       | 74       | 149      | 148      |
| South Central Division.....  | 4        | 3        | 4        | 5        | 5        | 34           | 47       | 38       | 50       | 59       |
| North Central Division.....  | 10       | 10       | 12       | 14       | 21       | 193          | 241      | 230      | 353      | 494      |
| Western Division.....        | 2        | 2        | 2        | 2        | 3        | 45           | 34       | 36       | 49       | 57       |
| North Atlantic Division:     |          |          |          |          |          |              |          |          |          |          |
| Massachusetts.....           | 2        | 2        | 2        | 2        | 2        | 49           | 36       | 46       | 60       | 63       |
| New York.....                | 1        | 1        | 1        | 1        | 2        | 33           | 14       | 12       | 39       | 69       |
| Pennsylvania.....            | 3        | 3        | 3        | 3        | 3        | 80           | 89       | 77       | 94       | 78       |
| South Atlantic Division:     |          |          |          |          |          |              |          |          |          |          |
| Maryland.....                | 2        | 2        | 2        | 2        | 2        | 58           | 30       | 23       | 67       | 57       |
| District of Columbia.....    | 3        | 3        | 3        | 3        | 4        | 26           | 55       | 51       | 55       | 51       |
| Virginia.....                |          |          |          | 1        | 1        |              |          |          | 11       | 12       |
| Georgia.....                 |          |          |          | 2        | 2        |              |          |          | 16       | 28       |
| South Central Division:      |          |          |          |          |          |              |          |          |          |          |
| Kentucky.....                | 1        | 1        | 1        | 1        | 1        | 11           | 14       | 14       | 14       | 14       |
| Tennessee.....               | 3        | 2        | 3        | 3        | 3        | 23           | 33       | 24       | 24       | 33       |
| Alabama.....                 |          |          |          | 1        | 1        |              |          |          | 12       | 12       |
| North Central Division:      |          |          |          |          |          |              |          |          |          |          |
| Ohio.....                    | 1        | 1        | 1        | 2        | 5        | 13           | 15       | 11       | 18       | 65       |
| Indiana.....                 | 1        | 1        | 1        | 1        | 1        | 23           | 23       | 12       | 16       | 22       |
| Illinois.....                | 3        | 3        | 4        | 4        | 6        | 60           | 111      | 110      | 169      | 177      |
| Michigan.....                | 1        | 1        | 2        | 2        | 2        | 7            | 11       | 29       | 36       | 35       |
| Wisconsin.....               |          |          |          |          | 1        |              |          |          |          | 24       |
| Minnesota.....               | 1        | 1        | 1        | 1        | 1        | 26           | 25       | 20       | 19       | 18       |
| Iowa.....                    | 1        | 1        | 1        | 1        | 1        | 20           | 20       | 20       | 20       | 23       |
| Missouri.....                | 2        | 2        | 2        | 3        | 4        | 44           | 36       | 28       | 75       | 130      |
| Western Division:            |          |          |          |          |          |              |          |          |          |          |
| Colorado.....                | 1        | 1        | 1        | 1        | 1        | 11           | 11       | 13       | 9        | 9        |
| Washington.....              |          |          |          |          | 1        |              |          |          |          | 12       |
| California.....              | 1        | 1        | 1        | 1        | 1        | 34           | 23       | 23       | 40       | 36       |

TABLE 16.—*Statistics of students and graduates of schools of dentistry for five years.*

| State.                       | Students. |          |          |          |          | Graduates. |          |          |          |          |
|------------------------------|-----------|----------|----------|----------|----------|------------|----------|----------|----------|----------|
|                              | 1890-91.  | 1891-92. | 1892-93. | 1893-94. | 1894-95. | 1890-91.   | 1891-92. | 1892-93. | 1893-94. | 1894-95. |
| United States.....           | 3, 016    | 2, 985   | 2, 852   | 4, 152   | 5, 347   | 1, 012     | 1, 282   | a 507    | 877      | 1, 297   |
| North Atlantic Division..... | 1, 174    | 1, 031   | 1, 065   | 1, 312   | 1, 726   | 421        | 429      | 148      | 317      | 498      |
| South Atlantic Division..... | 413       | 396      | 324      | 543      | 692      | 147        | 192      | 45       | 127      | 146      |
| South Central Division.....  | 273       | 200      | 194      | 286      | 366      | 78         | 108      | 21       | 43       | 81       |
| North Central Division.....  | 1, 081    | 1, 257   | 1, 141   | 1, 860   | 2, 358   | 345        | 524      | 260      | 369      | 532      |
| Western Division.....        | 75        | 101      | 128      | 151      | 205      | 21         | 29       | 33       | 21       | 40       |
| North Atlantic Division:     |           |          |          |          |          |            |          |          |          |          |
| Massachusetts.....           | 114       | 161      | 180      | 225      | 252      | 44         | 20       | 35       | 49       | 59       |
| New York.....                | 283       | 272      | 286      | 294      | 520      | 85         | 85       | 47       | 62       | 111      |
| Pennsylvania.....            | 777       | 598      | 599      | 793      | 954      | 292        | 324      | a 66     | 206      | 328      |
| South Atlantic Division:     |           |          |          |          |          |            |          |          |          |          |
| Maryland.....                | 387       | 310      | 231      | 291      | 350      | 140        | 175      | a 36     | 81       | 90       |
| District of Columbia.....    | 26        | 86       | 93       | 81       | 123      | 7          | 17       | 9        | 16       | 26       |
| Virginia.....                |           |          |          | 22       | 31       |            |          |          |          | 3        |
| Georgia.....                 |           |          |          | 149      | 188      |            |          |          | 30       | 27       |
| South Central Division:      |           |          |          |          |          |            |          |          |          |          |
| Kentucky.....                | 133       | 67       | 45       | 92       | 130      | 26         | 36       | 6        | 9        | 25       |
| Tennessee.....               | 140       | 133      | 149      | 167      | 212      | 52         | 72       | 15       | 31       | 55       |
| Alabama.....                 |           |          |          | 27       | 24       |            |          |          | 3        | 1        |
| North Central Division:      |           |          |          |          |          |            |          |          |          |          |
| Ohio.....                    | 208       | 145      | 121      | 182      | 349      | 75         | 89       | 15       | 38       | 85       |
| Indiana.....                 | 96        | 88       | 65       | 106      | 127      | 39         | 55       | a 3      | 23       | 29       |
| Illinois.....                | 227       | 437      | 505      | 833      | 921      | 67         | 196      | 164      | 140      | 220      |
| Michigan.....                | 132       | 188      | 116      | 223      | 253      | 29         | 39       | 53       | 65       | 65       |
| Wisconsin.....               |           |          |          |          | 35       |            |          |          |          | 3        |
| Minnesota.....               | 37        | 53       | 61       | 44       | 80       | 7          | 4        | 12       | 6        | 12       |
| Iowa.....                    | 184       | 184      | 130      | 151      | 163      | 58         | 58       | a 6      | 32       | 25       |
| Missouri.....                | 197       | 162      | 143      | 321      | 430      | 70         | 83       | a 7      | 65       | 93       |
| Western Division:            |           |          |          |          |          |            |          |          |          |          |
| Colorado.....                | 12        | 12       | 14       | 18       | 24       | 5          | 5        | 5        | 3        | 2        |
| Washington.....              |           |          |          |          | 12       |            |          |          |          | 0        |
| California.....              | 63        | 89       | 114      | 133      | 169      | 16         | 24       | 28       | 18       | 38       |

a Year of adoption of course of three years.

TABLE 17.—*Statistics of schools of pharmacy for five years.*

| State.                       | Schools. |          |          |          |          | Instructors. |          |          |          |          |
|------------------------------|----------|----------|----------|----------|----------|--------------|----------|----------|----------|----------|
|                              | 1890-91. | 1891-92. | 1892-93. | 1893-94. | 1894-95. | 1890-91.     | 1891-92. | 1892-93. | 1893-94. | 1894-95. |
| United States.....           | 30       | 29       | 31       | 35       | 39       | 194          | 216      | 264      | 283      | 317      |
| North Atlantic Division..... | 6        | 6        | 6        | 7        | 7        | 39           | 53       | 54       | 61       | 64       |
| South Atlantic Division..... | 4        | 3        | 3        | 5        | 7        | 23           | 15       | 16       | 26       | 27       |
| South Central Division.....  | 5        | 5        | 5        | 5        | 5        | 26           | 34       | 33       | 32       | 28       |
| North Central Division.....  | 13       | 13       | 15       | 16       | 17       | 93           | 104      | 147      | 150      | 176      |
| Western Division.....        | 2        | 2        | 2        | 2        | 3        | 13           | 10       | 14       | 14       | 22       |
| North Atlantic Division:     |          |          |          |          |          |              |          |          |          |          |
| Massachusetts.....           | 1        | 1        | 1        | 1        | 1        | 9            | 11       | 12       | 11       | 11       |
| New York.....                | 3        | 3        | 3        | 4        | 4        | 20           | 27       | 27       | 36       | 36       |
| Pennsylvania.....            | 2        | 2        | 2        | 2        | 2        | 10           | 15       | 15       | 14       | 17       |
| South Atlantic Division:     |          |          |          |          |          |              |          |          |          |          |
| Maryland.....                | 1        | 1        | 1        | 1        | 1        | 3            | 3        | 4        | 4        | 4        |
| District of Columbia.....    | 2        | 2        | 2        | 2        | 2        | 10           | 12       | 12       | 13       | 10       |
| Virginia.....                |          |          |          | 1        | 1        |              |          |          | 6        | 7        |
| North Carolina.....          |          |          |          | 1        | 1        |              |          |          | 3        | 2        |
| South Carolina.....          | 1        |          |          |          |          | 10           |          |          |          |          |
| Georgia.....                 |          |          |          |          | 2        |              |          |          |          | 4        |
| South Central Division:      |          |          |          |          |          |              |          |          |          |          |
| Kentucky.....                | 2        | 2        | 2        | 2        | 1        | 11           | 20       | 16       | 13       | 4        |
| Tennessee.....               | 2        | 2        | 2        | 2        | 2        | 12           | 11       | 12       | 14       | 12       |
| Louisiana.....               | 1        | 1        | 1        | 1        | 1        | 3            | 3        | 5        | 5        | 5        |
| Texas.....                   |          |          |          |          | 1        |              |          |          |          | 3        |
| North Central Division:      |          |          |          |          |          |              |          |          |          |          |
| Ohio.....                    | 2        | 2        | 3        | 4        | 4        | 22           | 23       | 25       | 30       | 37       |
| Indiana.....                 | 1        | 1        | 1        | 1        | 1        | 7            | 6        | 8        | 7        | 7        |
| Illinois.....                | 2        | 2        | 2        | 2        | 3        | 14           | 11       | 18       | 19       | 23       |
| Michigan.....                | 1        | 1        | 2        | 2        | 2        | 10           | 11       | 22       | 22       | 21       |
| Wisconsin.....               | 1        | 1        | 1        | 1        | 1        | 5            | 6        | 27       | 24       | 26       |
| Minnesota.....               | 1        | 1        | 1        | 1        | 1        | 5            | 6        | 4        | 5        | 17       |
| Iowa.....                    | 2        | 2        | 2        | 2        | 2        | 13           | 15       | 16       | 16       | 17       |
| Missouri.....                | 2        | 2        | 2        | 2        | 2        | 11           | 14       | 15       | 16       | 15       |
| Kansas.....                  | 1        | 1        | 1        | 1        | 1        | 6            | 12       | 12       | 11       | 13       |
| Western Division:            |          |          |          |          |          |              |          |          |          |          |
| Colorado.....                | 1        | 1        | 1        | 1        | 1        | 4            |          | 4        | 4        | 7        |
| Washington.....              |          |          |          |          | 1        |              |          |          |          | 4        |
| California.....              | 1        | 1        | 1        | 1        | 1        | 9            | 10       | 10       | 10       | 11       |

TABLE 18.—*Statistics of students and graduates of schools of pharmacy for five years.*

| State.                       | Students. |          |          |          |          | Graduates. |          |          |          |          |
|------------------------------|-----------|----------|----------|----------|----------|------------|----------|----------|----------|----------|
|                              | 1890-91.  | 1891-92. | 1892-93. | 1893-94. | 1894-95. | 1890-91.   | 1891-92. | 1892-93. | 1893-94. | 1894-95. |
| United States .....          | 2, 884    | 3, 133   | 3, 394   | 3, 658   | 3, 859   | 733        | 796      | 827      | 988      | 1, 067   |
| North Atlantic Division..... | 1, 346    | 1, 390   | 1, 459   | 1, 489   | 1, 606   | 370        | 383      | 368      | 415      | 420      |
| South Atlantic Division..... | 205       | 208      | 207      | 253      | 273      | 53         | 59       | 65       | 68       | 74       |
| South Central Division.....  | 188       | 157      | 165      | 169      | 176      | 43         | 40       | 36       | 45       | 49       |
| North Central Division.....  | 1, 029    | 1, 275   | 1, 443   | 1, 635   | 1, 580   | 248        | 314      | 321      | 426      | 498      |
| Western Division.....        | 116       | 103      | 120      | 112      | 164      | 19         | 0        | 37       | 34       | 26       |
| North Atlantic Division:     |           |          |          |          |          |            |          |          |          |          |
| Massachusetts.....           | 270       | 279      | 272      | 254      | 255      | 27         | 26       | 23       | 17       | 23       |
| New York.....                | 425       | 425      | 455      | 537      | 566      | 156        | 142      | 151      | 194      | 175      |
| Pennsylvania.....            | 651       | 686      | 732      | 698      | 845      | 187        | 215      | 194      | 204      | 222      |
| South Atlantic Division:     |           |          |          |          |          |            |          |          |          |          |
| Maryland.....                | 125       | 135      | 120      | 127      | 119      | 30         | 39       | 43       | 36       | 49       |
| District of Columbia .....   | 55        | 73       | 87       | 97       | 98       | 22         | 20       | 22       | 32       | 11       |
| Virginia.....                |           |          |          | 16       | 29       |            |          |          |          | 5        |
| North Carolina.....          |           |          |          | 13       | 16       |            |          |          | 0        | 5        |
| South Carolina.....          | 25        |          |          |          |          | 1          |          |          |          |          |
| Georgia.....                 |           |          |          |          | 11       |            |          |          |          | 4        |
| South Central Division:      |           |          |          |          |          |            |          |          |          |          |
| Kentucky.....                | 124       | 78       | 78       | 97       | 65       | 24         | 19       | 17       | 19       | 19       |
| Tennessee.....               | 31        | 33       | 43       | 40       | 46       | 6          | 8        | 9        | 15       | 13       |
| Louisiana.....               | 33        | 46       | 44       | 32       | 36       | 13         | 13       | 10       | 11       | 14       |
| Texas.....                   |           |          |          |          | 29       |            |          |          |          | 3        |
| North Central Division:      |           |          |          |          |          |            |          |          |          |          |
| Ohio.....                    | 101       | 100      | 151      | 360      | 383      | 30         | 35       | 37       | 118      | 129      |
| Indiana.....                 | 65        | 70       | 88       | 85       | 89       | 22         | 21       | 22       | 36       | 35       |
| Illinois.....                | 421       | 584      | 611      | 690      | 511      | 86         | 124      | 136      | 138      | 197      |
| Michigan.....                | 91        | 81       | 109      | 78       | 108      | 30         | 31       | 27       | 31       | 29       |
| Wisconsin.....               | 56        | 64       | 65       | 42       | 42       | 16         | 15       | 14       | 12       | 8        |
| Minnesota.....               | 4         | 6        | 3        | 4        | 42       | 1          | 1        | 1        | 1        | 11       |
| Iowa.....                    | 61        | 77       | 75       | 71       | 87       | 5          | 13       | 15       | 9        | 9        |
| Missouri.....                | 194       | 246      | 284      | 250      | 256      | 52         | 62       | 63       | 69       | 72       |
| Kansas.....                  | 36        | 47       | 57       | 55       | 62       | 6          | 12       | 6        | 12       | 8        |
| Western Division:            |           |          |          |          |          |            |          |          |          |          |
| Colorado.....                | 13        |          | 17       | 17       | 27       | 4          |          | 4        | 4        | 4        |
| Washington.....              |           |          |          |          | 27       |            |          |          |          | 0        |
| California.....              | 103       | 103      | 103      | 95       | 110      | 15         | 0        | 33       | 30       | 22       |



TABLE 19.—*Statistics of schools for training nurses, for five years.*

| State.                        | Schools. |          |          |          |          |
|-------------------------------|----------|----------|----------|----------|----------|
|                               | 1890-91. | 1891-92. | 1892-93. | 1893-94. | 1894-95. |
| United States .....           | 34       | 36       | 47       | 66       | 131      |
| North Atlantic Division ..... | 26       | 28       | 33       | 40       | 77       |
| South Atlantic Division ..... | 1        | 1        | 2        | 4        | 11       |
| South Central Division .....  |          |          |          | 1        | 1        |
| North Central Division .....  | 6        | 6        | 11       | 20       | 39       |
| Western Division .....        | 1        | 1        | 1        | 1        | 3        |
| North Atlantic Division:      |          |          |          |          |          |
| Maine .....                   |          |          |          |          | 1        |
| New Hampshire .....           |          |          |          |          | 1        |
| Vermont .....                 | 1        | 1        | 1        | 1        | 1        |
| Massachusetts .....           | 5        | 5        | 5        | 6        | 14       |
| Rhode Island .....            | 1        | 1        | 1        | 1        | 1        |
| Connecticut .....             | 1        | 1        | 1        | 1        | 2        |
| New York .....                | 12       | 14       | 15       | 19       | 33       |
| New Jersey .....              | 2        | 2        | 3        | 3        | 5        |
| Pennsylvania .....            | 4        | 4        | 7        | 9        | 19       |
| South Atlantic Division:      |          |          |          |          |          |
| Maryland .....                |          |          |          | 1        | 3        |
| District of Columbia .....    | 1        | 1        | 2        | 2        | 5        |
| Virginia .....                |          |          |          |          | 2        |
| Georgia .....                 |          |          |          | 1        | 1        |
| South Central Division:       |          |          |          |          |          |
| Texas .....                   |          |          |          | 1        | 1        |
| North Central Division:       |          |          |          |          |          |
| Ohio .....                    |          |          | 1        | 1        | 5        |
| Indiana .....                 | 1        | 1        | 1        | 1        | 1        |
| Illinois .....                | 1        | 1        | 1        | 8        | 12       |
| Michigan .....                | 2        | 2        | 2        | 2        | 6        |
| Wisconsin .....               |          |          | 1        | 1        | 2        |
| Minnesota .....               | 1        | 1        | 3        | 3        | 6        |
| Iowa .....                    |          |          |          | 1        | 2        |
| Missouri .....                | 1        | 1        | 2        | 3        | 5        |
| Western Division:             |          |          |          |          |          |
| Oregon .....                  |          |          |          |          | 1        |
| California .....              | 1        | 1        | 1        | 1        | 2        |

TABLE 20.—Statistics of students and graduates of schools for training nurses, for five years.

| State.                       | Students. |          |          |          |          | Graduates. |          |          |          |          |
|------------------------------|-----------|----------|----------|----------|----------|------------|----------|----------|----------|----------|
|                              | 1890-91.  | 1891-92. | 1892-93. | 1893-94. | 1894-95. | 1890-91.   | 1891-92. | 1892-93. | 1893-94. | 1894-95. |
| United States.....           | 1, 613    | 1, 862   | 2, 338   | 2, 710   | 3, 985   | 527        | 582      | 786      | 970      | 1, 498   |
| North Atlantic Division..... | 1, 267    | 1, 498   | 1, 749   | 1, 927   | 2, 593   | 410        | 474      | 601      | 709      | 1, 013   |
| South Atlantic Division..... | 39        | 40       | 64       | 90       | 258      | 2          | 5        | 24       | 29       | 79       |
| South Central Division.....  | .....     | .....    | .....    | 17       | 14       | .....      | .....    | .....    | 8        | 7        |
| North Central Division.....  | 261       | 274      | 474      | 647      | 1, 044   | 102        | 87       | 143      | 235      | 361      |
| Western Division.....        | 46        | 50       | 51       | 29       | 76       | 13         | 16       | 18       | 19       | 38       |
| North Atlantic Division:     |           |          |          |          |          |            |          |          |          |          |
| Maine.....                   | .....     | .....    | .....    | .....    | 53       | .....      | .....    | .....    | .....    | 21       |
| New Hampshire.....           | .....     | .....    | .....    | .....    | 4        | .....      | .....    | .....    | .....    | 0        |
| Vermont.....                 | 31        | 17       | 30       | 27       | 43       | 0          | 3        | 7        | 5        | 7        |
| Massachusetts.....           | 315       | 354      | 354      | 397      | 550      | 80         | 108      | 112      | 143      | 203      |
| Rhode Island.....            | 43        | 32       | 34       | 41       | 42       | 9          | 8        | 14       | 17       | 12       |
| Connecticut.....             | 66        | 54       | 80       | 72       | 123      | 25         | 21       | 12       | 12       | 42       |
| New York.....                | 559       | 746      | 786      | 873      | 1, 000   | 196        | 212      | 249      | 332      | 420      |
| New Jersey.....              | 48        | 50       | 78       | 88       | 144      | 17         | 22       | 35       | 38       | 55       |
| Pennsylvania.....            | 205       | 245      | 387      | 429      | 634      | 83         | 100      | 172      | 162      | 253      |
| South Atlantic Division:     |           |          |          |          |          |            |          |          |          |          |
| Maryland.....                | .....     | .....    | .....    | 28       | 105      | .....      | .....    | .....    | 13       | 43       |
| District of Columbia.....    | 39        | 40       | 64       | 57       | 121      | 2          | 5        | 24       | 16       | 33       |
| Virginia.....                | .....     | .....    | .....    | 26       | 6        | .....      | .....    | .....    | .....    | 3        |
| Georgia.....                 | .....     | .....    | .....    | 5        | 6        | .....      | .....    | .....    | 0        | 0        |
| South Central Division:      |           |          |          |          |          |            |          |          |          |          |
| Texas.....                   | .....     | .....    | .....    | 17       | 14       | .....      | .....    | .....    | 8        | 7        |
| North Central Division:      |           |          |          |          |          |            |          |          |          |          |
| Ohio.....                    | .....     | .....    | 74       | 74       | 154      | .....      | .....    | 23       | 23       | 35       |
| Indiana.....                 | 18        | 26       | 23       | 18       | 18       | 8          | 7        | 8        | 7        | 9        |
| Illinois.....                | 115       | 115      | 140      | 328      | 360      | 46         | 45       | 61       | 100      | 141      |
| Michigan.....                | 75        | 65       | 81       | 68       | 128      | 31         | 22       | 25       | 38       | 56       |
| Wisconsin.....               | .....     | .....    | 35       | 44       | 53       | .....      | .....    | 12       | 13       | 15       |
| Minnesota.....               | 21        | 21       | 74       | 67       | 198      | 8          | 2        | 8        | 6        | 63       |
| Iowa.....                    | .....     | .....    | .....    | 4        | 60       | .....      | .....    | .....    | 0        | 21       |
| Missouri.....                | 32        | 47       | 47       | 44       | 73       | 9          | 11       | 6        | 18       | 21       |
| Western Division:            |           |          |          |          |          |            |          |          |          |          |
| Oregon.....                  | .....     | .....    | .....    | .....    | 21       | .....      | .....    | .....    | .....    | 8        |
| California.....              | 46        | 50       | 51       | 29       | 55       | 13         | 16       | 18       | 19       | 30       |



## CHAPTER VI.

### THE EDUCATIONAL SYSTEMS OF ENGLAND AND SCOTLAND, WITH STATISTICS FOR 1893-94.<sup>1</sup>

MATERIAL CONSULTED.—*Elementary educational laws: England, 1870, 1873, 1876, 1891; Scotland, 1872, 1878, 1883—Annual reports and regulations (codes).*

Great Britain, constitutional monarchy; area, England and Wales, 58,186 square miles; population (estimated, 1894), 30,060,763; Scotland, 29,820 square miles; population, 4,123,038.

For previous articles on education in Great Britain, see the following:

Detailed view of the educational system of England. (Report for 1888-89, Vol. I, pp. 78-111.)

Religious and moral training in public elementary schools, England and Wales. (Ibid., pp. 438-457.)

Brief view of the educational system with current statistics. (Report for 1889-90, Vol. I, pp. 237-248.)

Educational system of Scotland. (Ibid., pp. 187-236.)

Elementary education in London and Paris. (Ibid., pp. 263-280.)

Brief view of systems of England and Scotland, with current statistics and comparison with 1876 (England), 1880 (Scotland). (Report for 1890-91, Vol. I, pp. 125-134.)

Provision for secondary and for technical instruction in Great Britain. (Ibid. pp. 135-150.)

Educational system of Ireland. (Ibid., pp. 151-164.)

Elementary education in Great Britain and Ireland, 1892. (Report for 1891-92, Vol. I, pp. 97-104.)

Technical instruction in Great Britain. (Ibid., pp. 105-137.)

Elementary education in Great Britain. (Report for 1892-93, Vol. I, pp. 203-208.)

Religious instruction under the London school board. (Report for 1892-93, Vol. I, pp. 208-218.)

*Topical outline: General educational policy and statistical summary—Elementary schools; relation of government to; comparative statistics—Renewal of the agitation respecting religious instruction in board schools and of public support for denominational schools.*

A sense of public responsibility with respect to the education of the masses and a deep-seated regard for local independence and local initiative mark the educational policy within the British Empire. It is the excess of one or the other of these principles which gives special character to this policy as it operates in Great Britain, in Ireland, in the colonies, and in British India and other dependencies.

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<sup>1</sup> Prepared by Miss Anna Tolman Smith.



The feeble beginning in 1833 (i. e., the appropriation of \$100,000 for school buildings) scarcely foreshadowed the part which the General Government was to take in the development of this interest in Great Britain. Without encroaching at all upon local rights or assuming local obligations, it has become the organizing power in elementary education and the chief source of its support, contributing in 1893-94 about 67 per cent of the income of elementary schools in England and 73 per cent in Scotland. Nearly one-third of this appropriation, amounting to \$10,213,800 for England and to \$1,629,600 for Scotland, was the grant in lieu of fees. Local taxes (rates) supplied 19 per cent of the income in England and 22 per cent in Scotland, leaving about 15 per cent derived from private sources in the former division and less than 5 per cent in the latter.

In England, as yet, only elementary instruction has been brought into the form of a system, which is determined in its main features by the law of 1870. The law, passed two years later (1872), for Scotland has a more extensive range. In this, secondary schools are distinctly recognized; moreover, Scotch universities have a very close relation to the Government, since parliamentary grants provide the larger part of their income. Hence, scholastic institutions of all grades in Scotland have a basis for organic union, which is wanting in England. Nevertheless, taken in its full sense, the word system must be considered as relating only to the elementary schools of Scotland, which are organized on substantially the same lines as those of England.

The following summary presents the principal statistics pertaining to universities and elementary schools for the year under review:

*Educational statistics.*

| Sources of information.      | Institutions.                              | Date of report. | Registered students or pupils. | Professors or teachers. | Expenditure. |
|------------------------------|--|-----------------|--------------------------------|-------------------------|--------------|
|                              | GREAT BRITAIN.                             |                 |                                |                         |              |
|                              | England and Wales.                         |                 |                                |                         |              |
| Statesman's Year-Book, 1895. | Universities:                              |                 |                                |                         |              |
|                              | Oxford (23 colleges).....                  | 1894            | a 3,256                        | 93                      | .....        |
|                              | Cambridge (19 colleges).....               | 1894            | 2,839                          | 93                      | .....        |
|                              | Durham (1 college).....                    | 1894            | 196                            | 13                      | .....        |
|                              | Detached colleges (15).....                | 1894            | b 8,390                        | 780                     | .....        |
|                              | University colleges for women (4)          | 1894            | 371                            | .....                   | .....        |
|                              | Bedford College for women.....             | 1894            | 146                            | .....                   | .....        |
| Official report, 1894-95.    | Elementary day schools.....                | 1894            | 5,235,887                      | 105,495                 | \$14,513,316 |
|                              | Night schools.....                         | 1894            | 266,683                        | c 3,738                 |              |
|                              | Training colleges for elementary teachers. | 1894            | 4,281                          | .....                   |              |
|                              |  | Scotland.       |                                |                         |              |
| Statesman's Year-Book, 1895. | Universities:                              |                 |                                |                         |              |
|                              | Aberdeen (1 college).....                  | 1894            | 695                            | 50                      | .....        |
|                              | Edinburgh (1 college).....                 | 1894            | d 2,949                        | 67                      | .....        |
|                              | Glasgow (1 college).....                   | 1894            | e 1,878                        | 85                      | .....        |
|                              | St. Andrews (1 college).....               | 1894            | 193                            | 27                      | .....        |
|                              | Dundee University College.....             | 1894            | 107                            | 19                      | .....        |
| Official report, 1894-95.    | Elementary day schools.....                | 1894            | 699,716                        | 14,585                  | 6,730,743    |
|                              | Night schools.....                         | 1894            | 67,200                         | .....                   |              |
|                              | Training colleges for elementary teachers. | 1894            | 939                            | .....                   |              |

a Undergraduates.

b Includes 699 women and excludes 8,359 evening students.

c Principals.

d Includes 140 women.

e Includes 205 women.

*Educational statistics—Continued.*

| Sources of information.      | Institutions.                              | Date of report. | Registered students or pupils. | Professors or teachers. | Expenditure.   |
|------------------------------|--|-----------------|--------------------------------|-------------------------|----------------|
|                              | GREAT BRITAIN—continued                    |                 |                                |                         |                |
|                              | <i>Ireland.</i>                            |                 |                                |                         |                |
| Statesman's Year-Book, 1895. | Universities:                              |                 |                                |                         |                |
|                              | Dublin University (1 college) ...          | 1894            | 1, 124                         | 67                      | .....          |
|                              | Belfast, Queen's College .....             | 1894            | 353                            | 23                      | .....          |
|                              | Cork, Queen's College .....                | 1894            | 253                            | 20                      | .....          |
|                              | Galway, Queen's College .....              | 1894            | 108                            | 17                      | .....          |
| Official report, 1894-95.    | Elementary day schools .....               | 1894            | a 832, 821                     | 12, 732                 | 6, 041, 142    |
|                              | Training colleges for elementary teachers. | 1894            | 673                            | .....                   | .....          |
| Official report, 1894-95.    | Department of science and art:             |                 |                                |                         |                |
|                              | Science schools and classes .....          | 1894            | b 183, 120                     | .....                   | } c3, 399, 008 |
|                              | Art schools and classes .....              | 1894            | b 136, 324                     | .....                   |                |

a Average number on rolls; the number of pupils who made at least one attendance during the year was 1,028,281.

b In addition to pupils in elementary schools receiving grants from the science and art department.

c Parliamentary grant for use in the work of the department, 1894-95.

The entire province of secondary instruction is omitted from the above table, as no summaries for this department are attainable. Recent estimates place the number of pupils pursuing secondary studies in England and Wales at 890,000, including the 90,000 pupils in higher board schools. In Scotland 73 secondary schools (i. e., 30 public high schools, 24 endowed schools, and 19 private schools) have submitted to the scheme of government inspection. The number presenting candidates for the government "leaving certificate" in 1894 was 270, and the number of candidates 13,173. The intermediate education board of Ireland, a public examining body, reports 6,974 students (5,265 boys and 1,709 girls) as coming up for examination in 1894.

## ELEMENTARY EDUCATION.

*Supervision and control.*—In both divisions of Great Britain, the action of the General Government with respect to elementary education is directed to securing through local agents sufficient school accommodation, and an adequate outcome for the money appropriated from the public treasury. This action is exercised through committees of the privy council (education department for England and the same for Scotland). The vice-president of each committee<sup>1</sup> is the virtual head of the respective system, and represents its interests in the House of Commons when the appropriations or general regulations (codes) are under discussion. The local managers with whom the department deals are: (1) Elected boards serving for three years; (2) private bodies (churches, corporations, etc.), whose schools are subject to Government inspection. Prior to 1895 every school was examined once a year by a Government inspector, who tested each class in the work of a prescribed programme, examined the buildings and premises with reference to specified requirements, and passed judgment upon the general organization and conduct of the school. By the regulations of 1895, schools that have reached a certain standard are now excused

<sup>1</sup> Right Hon. A. H. Dyke Acland, vice-president for England at the date of the last report issued, was succeeded, in July, 1895, by Sir John Gorst. The vice-president for Scotland is Lord Balfour, of Burleigh.

from the ordeal of a rigid examination; in place of this may be substituted two annual visits from the inspector, the visits to be made without notice. On these occasions the inspector is to test the instruction and the general condition of the school, and from the notes taken at the time to make up his report. The rate of grant allowed is determined by this report.<sup>1</sup> Thus virtually ends the system of "payment upon results."

For the maintenance of the inspection, England is divided into ten districts, each under a chief inspector. Under these is a force of 107 inspectors, 45 subinspectors, and 152 inspectors' assistants. There are also 2 chief inspectors for training colleges, a special inspector of music, a directress of needlework, and an inspectress of cookery and laundry work.

Scotland is divided into three districts, each having a chief inspector. Under these are 25 inspectors, 4 subinspectors, and 21 assistants.

*Elementary day schools; accommodation, enrollment, and average attendance.*—By the combined action of public and private agencies, school accommodation has been provided in England for 5,873,098 children, 77 per cent of the total number 3 to 14 years of age both inclusive, and in Scotland for 785,207, 82 per cent of the children 5 to 14 both inclusive.

For the year under review (1893-94) the total enrollment was for England, 5,235,887, and for Scotland, 699,716.

The detailed statistics and comparative views presented in the annual reports include only the schools actually inspected during the current year, a number always a little below the total on the list.

The following table gives the principal statistics in comparison with the same, for earlier dates. The date selected for England, 1876, was

<sup>1</sup>The grant is composed as follows:

(1) A fixed grant of 12½s. to 14s. (10s. to 14s. Scotland) per pupil in average attendance.

(2) A grant of 1s. to 1½s. for discipline and organization, reckoned on average attendance.

(3) Various grants in class and specified subjects. In Scotland a grant of 1s. to 3½s. is also allowed, according to the report on the general character of the instruction in the three elementary subjects. Special grants (£10 to £15) are also allowed under specified conditions for schools in thinly populated districts. Grants of £1 to £5 are also allowed in respect to each pupil teacher required to make up the minimum staff who passes a specified examination and of £10 to £15 for each assistant teacher passing the examination for a Government certificate. The total annual grant to a school, exclusive of the special grants to schools in sparsely settled regions, must not exceed 17s. 6d. for each unit of average attendance or the total income from all other sources. In other words, the Government seeks to stimulate, but not to replace, local effort.

In England infant schools are treated separately, grants for them reckoned on the basis of average attendance being:

(1) Fixed grant, 7s. to 9s. per capita of average attendance.

(2) Variable grant, 2s., 4s., or 6s.

(3) Grant for singing, 6d. or 1s.

(4) Grant for needlework, 1s. per capita of average attendance of girls.

marked by the passage of the first amendment to the law of 1870, constituting school attendance committees in districts where no boards were elected:

*Comparative view of schools inspected during the year specified.*

|  | England and Wales. |              |                             | Scotland.   |             |                             |
|--|--------------------|--------------|-----------------------------|-------------|-------------|-----------------------------|
|  | 1876.              | 1894.        | Increase<br>or<br>decrease. | 1880.       | 1894.       | Increase<br>or<br>decrease. |
| I. Estimated population.....   | 24,244,010         | 30,060,763   | <i>Per cent.</i><br>+24     | 3,705,314   | 4,123,038   | <i>Per cent.</i><br>+ 11.27 |
| II. Number of schools, day<br>and night (institutions<br>inspected)..... | 14,368             | 23,027       | + 60.26                     | 3,065       | 3,064       | -----                       |
| III. Pupils:   |                    |              |                             |             |             |                             |
| Accommodation for<br>day school.....                                     | 3,426,318          | 5,832,944    | + 41                        | 602,054     | 770,244     | + 28                        |
| Enrollment, day schools  | 2,943,734          | 5,198,741    | +115                        | 534,428     | 686,335     | + 28.42                     |
| Present at examina-<br>tions, day schools....                            | 2,412,211          | 4,802,209    | + 99                        | 470,581     | 643,458     | + 36.73                     |
| Average attendance:  |                    |              |                             |             |             |                             |
| Day schools.....   | 1,984,573          | 4,225,834    | +112.6                      | 404,618     | 567,442     | + 40.24                     |
| Night schools.....   | 49,858             | 115,530      | +131                        | 14,297      | 32,934      | + 13.03                     |
| IV. Number of teachers:  |                    |              |                             |             |             |                             |
| Certificated.....  | 23,053             | 50,689       | +119.8                      | 5,330       | 8,706       | + 63.33                     |
| Assistant.....   | 3,173              | 26,067       | +731.5                      | 444         | 1,947       | + 34                        |
| Pupil.....   | 32,231             | 28,739       | - 10.8                      | 4,582       | 3,932       | - 14.18                     |
| Studying in training<br>colleges.....                                    | 3,007              | 4,281        | + 42.3                      | 892         | 939         | + 5.26                      |
| V. Finances:   |                    |              |                             |             |             |                             |
| Current expenditures..   | \$16,584,356       | \$44,513,316 | +163.45                     | \$4,122,879 | \$6,730,743 | + 63.25                     |
| Government grant.....  | 7,457,684          | 29,766,300   | +299                        | 2,157,898   | 4,758,291   | +120.56                     |

It will be seen from the above table that the progress of elementary instruction has far outstripped the growth in population, and that it is marked not only in respect to the enrollment of pupils, but in respect to conditions which may be taken as proofs of improvement in the system; such are the increase in average attendance, which exceeds that of enrollment, and the increase in the number of adult teachers, with a corresponding decline in the number of pupil teachers. As the deficiency of school provision existing when the Government began its active efforts is overcome, the progress of the system is necessarily less decided than at first, nevertheless the growth from year to year more than keeps pace with the increase of population.

Comparing the statistics of 1894 with those of 1893, it appears that in England the increase of the population during the year is estimated at 1.09 per cent; the enrollment shows an increase of 1.41 per cent; the average attendance, an increase of 3.07 per cent. The enrollment was equivalent to 17.29 per cent of the population.

In Scotland, while the estimated population shows an increase over 1893 of 0.8 per cent, the enrollment has increased by 3.23 per cent and the average attendance by 4.53. Here the enrollment is equivalent to 16.64 per cent of the population.

Sufficient time has elapsed to determine the effect that remission of fees (laws of 1891, England; of 1889, and 1890, Scotland) has had upon school attendance.



As regards England, it was noted in the report for 1892-93 that the increase in the numbers on the school registers and the improvement in the regularity of attendance, as compared with the same for 1891-92, were nearly as much marked among the older children as among the "infants" (i. e., children under 7 years of age).

Comparison of the statistics for 1893-94 with those of 1892-93 shows that the increase in the enrollment of older pupils surpassed that of the younger.

The detailed statistics under this head are as follows: The number of infants on the registers has gone up from 1,813,992 to 1,830,994, an increase of 17,002 (0.94 per cent), and that of older children from 3,312,381 to 3,367,747, an increase of 55,366 (1.67 per cent). The number of infants in average attendance has risen from 1,278,798 to 1,320,856, an increase of 42,058 (3.29 per cent), and that of older children in average attendance from 2,821,232 to 2,904,978, an increase of 83,746 (2.97 per cent).

In Scotland, where the school age is 5 to 14 (as against 3 to 14 in England), the attendance of younger children has never been large. Here it is observed that the remission of fees has increased the attendance of children of earlier years, and even brought into school many who are under school age.

These results are sufficient to dispel the fears expressed in some quarters that parental interest in the education of children would decline with the relief from fees.

#### FINANCES.

The total income of elementary schools (evening included) for 1893-94 was, in England, £9,178,178 (\$44,661,014); in Scotland, £1,383,219 (\$6,730,743.63), derived as follows:

|   | England.         | Scotland.        |
|---|------------------|------------------|
|   | <i>Per cent.</i> | <i>Per cent.</i> |
| Local taxes (rates), board schools only .....               | 18.78            | 22.47            |
| Contributions, denominational schools chiefly .....         | 8.80             | 2.21             |
| Tuition fees (school pence) .....                           | 3.48             | 2.42             |
| Government grant, including the grant in lieu of fees ..... | 68.27            | 72.99            |
| Endowments and other sources .....                          | 2.67             | .....            |

The total expenditure in England was \$44,513,316.45; in Scotland, \$6,730,743.65.

Fees remitted in Scotland by laws of 1889 and 1890 and in England by law of 1891 may still be charged if managers forego the fee grant and parents make no objection. That free schools are generally desired is indicated by the fact that in England 82 per cent of elementary schools and in Scotland the entire number are now free for children of legal school age—3 to 14, inclusive, in the former; 5 to 14, inclusive, in the latter.

Besides the proportional part of the current income furnished from local sources, as shown above, local managers must provide buildings and equipments. The general government has aided in this work by loans amounting in England to £29,468,477 5s. 8d. (\$143,393,610.46), and in Scotland to £5,702,957 1s. 11½d. (\$27,750,593.63).

#### RECENT MOVEMENTS RELATIVE TO RELIGIOUS INSTRUCTION AND TO PUBLIC SUPPORT FOR DENOMINATIONAL SCHOOLS.

The question of religious instruction in State-aided elementary schools, and in general that of the relation of the State to denominational schools, is again disturbing England.

The events of 1894 relating to this periodical agitation were set forth in the Commissioner's report for 1892-93. The subject was reopened during that year by the efforts of certain members of the London school board to establish a religious test for teachers. The effort was apparently abandoned and the whole subject dropped as a consequence of the school board election. The constitution of the new board for London, which came into control of the schools in December, was sufficient proof that the endeavor to reopen the religious controversy was not supported by the electors. The "Progressives," who oppose sectarian teaching, actually polled 150,000 more votes than their opponents, and the majority of the latter in the board was reduced from 15 to 3, and even these were known to be opposed to any disturbance of the "settlement of 1870." So far as the London board was concerned, the discussions of the previous year had centered in "the test circular for teachers." This circular explained that the religious instruction allowed in board schools should be held to include "a belief in God the Father as our Creator, God the Son as our Redeemer, and God the Holy Ghost as our Sanctifier." It stated, however, that teachers who could not conscientiously give the instruction in that sense might seek relief from the obligation. At the time the circular was issued (March, 1894) there were 8,902 teachers under the board giving religious instruction. Of these, 5,772 accepted the circular without protest, 6 applied individually for relief, and 3,127 applied collectively through the Metropolitan Board Teachers' Association. The appeal in this form was disregarded by the board, but a second circular letter was addressed to the signers asking if they personally desired to be relieved from giving the religious instruction in the sense explained in the circular. To this inquiry 8 responded affirmatively, 230 negatively, while 2,886 took no notice of the question.

On account of the attitude assumed by the teachers in the last-named group, the promotion of one of the number was opposed by Mr. Athelstan Riley, the author of the circular. His course in the matter was made the subject of investigation, and for several weeks excitement ran high in the board meetings and was reflected in the press.

The endeavor of Mr. Riley "to carry on a private inquisition" into the religious opinions of teachers was held to be a violation of a rule of the board, which reads as follows:

The religious opinions of teachers are not to influence their selection, nomination, appointment, or promotion, nor are teachers or candidates for appointment as teachers to be subjected to any questions with reference to their religious belief or as to the possession or otherwise of certificates which might be taken as indicative of belonging to any particular denomination, nor are inquiries to be made into the religious beliefs of teachers, either by committees of the board, local managers, or by any other person having any connection with the board.

Very few even of the Clerical party were prepared to defend Mr. Riley's course and it was virtually condemned by an amendment to a resolution calling for his resignation from the committee on teachers.

The amendment, which passed by a vote of 26 to 0, 10 members not voting, was as follows:

That the board is of opinion that any member who can not conscientiously act in the spirit of Rule 15 of the code of regulations should not serve upon the teaching staff subcommittee, and that the school management committee be informed of this resolution.

While the matter was under discussion in the London board, the unexpected defeat of the Liberal party at the polls reopened for the entire country the question of public support for denominational schools.

Leading conservative candidates for Parliament had made pledges in favor of additional aid to these schools from public funds. An important principle is here at stake—the appropriation of public money where public control can not be exercised. This principle is already strained in the grants made to denominational (i. e., voluntary) schools, and it is held by opponents that the policy should be abandoned instead of being extended. The admission of parochial schools to the benefit of local taxes would be resisted even more resolutely than a measure for increasing their resources from the public treasury.

The short session of Parliament that followed the election gave no time for any positive action in the matter. Meanwhile both parties are deploying all their forces for the contest and the air is full of compromise proposals. The importance of the principles and interests involved and the intense excitement which the controversy arouses will be best understood in the light of these proposals and the utterances which they have evoked. The watchword of the advocates of the denominational schools, "The intolerable strain to which these schools are now subjected," was supplied by Mr. Balfour, the leader of the House of Commons, in a letter addressed to Lord Cranborne, August 22. The expression "intolerable strain" was immediately seized upon and has been the text of appeals and addresses ever since. Under this phrase the sum that churchmen pay for the privilege of controlling the education of 45 per cent of the school children is concealed. From a careful analysis of the figures it appears that out of every £2 paid for a child in a "voluntary school the country provides

all but about 6 or 7 shillings—reckoning, of course, the fees paid by some of the children as part of the money paid by the country. Church voluntary contributions provide about three and sixpence in the pound, and it is by no means certain that the whole of what little money they have voluntarily contributed should all be accredited to elementary education.” In the letter already referred to Mr. Balfour not only gave expression to his personal desire to relieve the strain, but added, “this is, I believe, the general wish of the party and of the Government.”

The premier, Lord Salisbury, since assuming the office, has defined his own position in the subject by referring to his speech made in May last, before the cabinet crisis. At that time he said :

I do earnestly claim for the Church of England the right that the parents who belong to the Church of England should bring up their children in their own way. I claim the same right for the Roman Catholics. I claim the same right for the Nonconformists.

What I urge above all things is that each parent should bring up his child in his own belief, undiminished and unquestioned, and should not attempt the impossible—almost profane—task of trying to boil down different beliefs into one common profession.

I earnestly press on all who hear me to value in the first instance, above all, that the children of all should be brought up to believe in the religion of their parents.

Naturally with these assurances of support from the Government chiefs the Church party, which a few months since was facing the possibility of disestablishment, is aroused to a determined effort in behalf of its educational forces.

The modes of relief proposed by the advocates of denominational schools as already stated are (1) increase of funds from the public treasury and (2) admission of denominational schools to a share in the local taxes (rates). Under the first head falls the bill proposed by “The National Society for the Education of the Poor in the Principles of the Established Church.”

This bill proposes—

to treat all schools alike, whether board schools or voluntary; to abolish entirely what is called “payment by results” and to continue the fee-grant as at present, and to appropriate the only other Government grant to paying the salaries of teachers; all schools are still to pay from local sources (either subscriptions or rates) a fractional part of the salaries, at the rate of 5s. per head, upon the average attendance, the grant paying all the rest; and the teachers are to be appointed and controlled by the local managers, and may be dismissed by them, but with a right of appeal.

A second scheme, submitted by an eminent churchman, simply proposes that the Government grant to all schools shall be increased by 5s. per capita of average attendance.

The Roman Catholic proposal calls for the support of elementary education in schools of all classes entirely from public funds, the additional help required to come from the rates; gives to any person or persons “the power to found a new school in any school-board district if the parents of at least 30 children of school age desire it and



intend to use it; and it gives to every such school the right to claim and receive support both from the education department and from the rates."

All of the above proposals agree in opposing public control of sectarian schools.

A species of representative management is indeed recognized in the Roman Catholic scheme by the provision "That the managers of such schools shall be representative by this way: That there shall be for every five managers two appointed by the parents of the scholars and three by the trustees or founders—none by the ratepayers as such."

Under any one of these proposals what is known as the 17s. 6d. limit would disappear; that is, the amount of Government grant to any school would no longer, as now, be limited to 17s. 6d. per capita of average attendance, or to an amount equal to that from local sources. In other words, it would become possible for a denominational school to be supported wholly by grants. Compromise measures are offered also by the advocates of board schools. The National Union of Elementary Teachers proposes a new special grant of 10s. per head; this grant to be exempted from the operation of the 17s. 6d. limit, and all of it to be spent year by year upon the staff and appliances of the school.

There should be no diminution of rates, fees, or subscriptions on account of this grant.

Every voluntary school to have a "competent body of managers," conducting their business in a formal manner approved by the Department, and, of them, a certain number or proportion to be nominated by the Education Department.

Mr. Spottiswoode, well known in the educational world, submitted a bill, of which the main points are (1) that it provides for rate aid to all schools, and (2) "that it secures full denominational teaching on condition of representative management."

The determined attitude of the great religious bodies in the questions at issue does not argue well for the ultimate permanent success of compromise measures.

At the church congress held in October the report of a committee appointed by the archbishops to propose a plan for the further aid of voluntary schools was presented by the chairman, Canon Scott. "The committee were unanimous in agreeing that the voluntary schools should not be given up. They advised churchmen to demand the abolition of the 17s. 6d. and other limitations upon the grant earned, and the freeing of the school buildings from rates and taxes." They also recommended further legislative facilities for the confederation of schools, i. e., to enable the church schools to help one another. The report then discusses three important questions: (1) The religious question; (2) The source of further financial aid; (3) The school board veto upon so-called "unnecessary" schools. On the first head the committee held that the only course is to provide church schools for church

children, and Roman Catholic schools for Roman Catholic children, "for thus only is it possible to secure that the teachers shall be appointed with a real care for their religious influence and teaching, as well as for their secular acquirements."

The second question, which followed directly from this, was the question of additional financial support. On this point Canon Scott said:

The committee had before them every proposal for rate aid. Now, all rate-aid schemes fall under one of two heads—either a subvention from the rates by the local authority or the power to the ratepayer to allocate his share of the school rate to a particular school. It does not seem to me that the supporters of either of these proposals have worked out their plans completely. It has not been taken into account, that, except the large cities, very few towns can afford such an increase to the local rates. There is a further question. Rate aid involves representative management. No plan has yet been proposed which does not leave the representatives of the church in a minority upon the management. Rate aid having thus failed to provide a safe remedy for our troubles, the archbishops' committee recommended an appeal for increased aid from the Imperial Government, such aid to go toward the teaching staff. This proposal has three great advantages. It would secure an adequate, proportionate, and fairly paid teaching staff in every school; it would effectually eliminate competition between board and voluntary schools in the only place where competition is of serious consequence; it earmarks the Government grant so that the managers are simply the paymasters, and therefore they have no opportunity of abusing public money; they must put it to the purpose for which it was intended; and it avoids the question of representative management.

The third point in the bill—

is the liberty to open new schools whether they be actually new schools or the resumption of old schools previously handed over to a board, which would be technically reckoned as new schools. In the opinion of the committee, this is at present the only satisfactory solution of the religious difficulty—that is, to make religion one of the elements to be considered in deciding whether a school is necessary or unnecessary. There are some cases where the population is so small that this would not be possible. In such cases the religious difficulty might be entirely met by the school providing for all children who are not withdrawn, teaching such as a board school might give—Holy Scripture, the Creed, the Lord's Prayer and the Ten Commandments, and then, in addition, giving to those children who claimed it the fuller teaching of the entire Catechism. Lastly, whatever is done should be done so as to enable the schools in rural districts not only to provide better teachers, and pay them better, but also to improve their curricula and provide more opportunities for their scholars.

The protest of the Congregational Union against the positions here assumed was expressed in the following resolution:

That this assembly, feeling with ever-increasing force the importance of the education of the children of this country, and the need of watchful care, that the people from whose resources the cost of education is provided should have a powerful voice in the government of all schools aided by public grants; mindful also of the extent to which the children of nonconformists are forced to attend schools under clerical control, is strenuously opposed to the proposals of the archbishops and the Roman Catholic committees to seek increased grants of public funds for schools under denominational management, and for teachers whose appointment or dismissal would be vested in unrepresentative bodies. The assembly can not but regard these proposals as an attempt, under the guise of assistance to so-called voluntary schools, to create a fresh endowment of religious denominations by the state. It trusts that

all Congregationalists will present a united front in resisting such proposals and will maintain the principle that schools supported by the people must be governed by the people. The assembly further recommends the appointment of a national committee, including representative men of every denomination in England and Wales, to resist any further endowment of sectarian schools out of taxes or rates, and to demand the extension of school boards throughout the country, with large areas of administration, and providing unsectarian schools within reach of the population. And the assembly instructs the committee of the union to take immediate action for the formation of such a national committee.

The Baptist Union of Great Britain and Ireland and the Welsh Baptist Union were equally pronounced in their opposition.

At the Grindelwald conference on the reunion of Christendom, the Rev. Hugh Price Hughes created great excitement by a proposal which he termed a "concordat." It was as follows:

That the Church of England should make its day schools truly national schools, free from denominational bias, and that, on the other hand, nonconformists should sanction the teaching of the Apostles' Creed in all the schools of the country subject, of course, to a conscience clause.

Mr. Hughes added that he—

would further be prepared to support a proposal that all teachers that undertook religious teaching should be definitely trained in historical Christianity, by which he meant the Christianity of the Apostles' Creed. They must tell Unitarians, Atheists, Agnostics, Jews, Mohammedans, and Theosophists, and any others who objected to such a proposal that the majority of Englishmen desired their children to have a Christian education; that they were sufficiently protected by the conscience clause, and that they could not be permitted to interfere with a great national scheme of education.

No sooner was the "concordat" made public than it was repudiated on all sides by leading Methodists.

Dr. Rigg, in protesting against the Hughes "concordat," reiterates the resolution adopted by the Methodist Conference in 1891, which was as follows:

That the primary object of Methodist policy in the matter of elementary education is the establishment of school boards everywhere, acting in districts of sufficient areas, and the placing of a Christian nonsectarian school within reasonable distance of every family. This is of special importance in the rural districts, where our people have no alternative to the compulsory attendance of their children at Anglican schools.

The actual position of all nonconformists is plainly expressed by Dr. Parker, of London:

The only way out of the religious difficulty in rate-supported schools is to withdraw religion from the control of the state.

Outside of church orders the opposition to the increase of clerical power in elementary schools is organized for effective manifestation. Although the National Union of Teachers has proposed a compromise measure, the association is fully committed to the policy of public control where public funds are applied. Much more significant is the formation of the Birmingham Education League for the purpose of



resisting all proposals for increased aid from "public funds to schools under private denominational management, on the ground that they reopen the educational settlement of 1870, and tend to arrest the growth of an universal system of education under the local control of the elected representatives of the ratepayers."

The leader of the movement is Mr. George Dixon, chairman of the Birmingham school board, who achieved a national reputation as president of the National Education League. This league was founded prior to 1870, and contended in Parliament and out of Parliament for a complete system of public secular free schools as against the compromises actually adopted. From this same league, which was dissolved nearly twenty years ago, also emanated the scheme of Bible reading, without note or comment adopted by many school boards of England. The new association is not like the old league, a national organ, but its spirit is contagious, as is shown by the conference held in London soon after the Birmingham meeting, over which Mr. Dixon was invited to preside.

It may be supposed that in the face of such opposition the Conservative leaders will hesitate as to practical measures. The latest manifestation of the Government intentions was the speech of Lord Salisbury to the deputation headed by the archbishop of Canterbury, which sought audience in November to submit the memorial of the archbishop's committee.

In his address as reported in the *Standard* (London) Lord Salisbury said:

I am naturally come here rather to listen to the speeches, and much of what has been under discussion is matter of departmental detail, with which I am not qualified to deal. Of course, I can not tell you what the intentions of the Government are, because, in the first instance, as you know, the matter is still under consideration by the Government and we could not speak with any distinctness or certainty. But we are deeply sensible of the extreme importance of the question you have brought before us. The presence of such a deputation as this would be sufficient to impress the matter upon our minds; and the circumstance alluded to by Sir Edward Clarke, as to the strong feeling in the country, naturally ought to have effect in inducing us to consider the question with great care. We are in a position of very great difficulty, and I must say—although I may be in a minority in saying so—largely in consequence of the omissions and defects of the act of 1870. I quite concur with those who have said that from the principles and structure of that act we can not now depart; but that does not prevent us from saying that in consequence of the oversights committed at that time much of the difficulty has arisen. That act was passed in a moment of considerable mental excitement, and largely founded upon enthusiasm and panic. There was a great desire on the part of the education department to take advantage of a moment which they thought might never recur to pass a measure, and there was a very great apprehension on the part of the friends of the church that if they did not pass that bill they might get something worse. In consequence of these two feelings, at a time when Parliament was very much occupied, sufficient consideration was not given to all the difficulties that might arise. After our experience, two main difficulties present themselves—that is, two on principal points in the working of the act which have hitherto been held to be fundamental principles in English legislation and administration. The board



schools were set up to satisfy the crying need of supplying education where it did not exist. But the religious difficulty was, of course, very strongly felt. The answer was that there were voluntary schools beside the board schools, and that parents who did not like the education of the board schools would always have that resource. So long as the board schools did not act as an agency for exterminating voluntary schools, that answer was perfect and complete; but now you have compulsory education, so that every parent must send his child to school, and you have in operation machinery which seems destined at no very distant period to remove a great number of the schools where the parent has found the religious education he desires. Of course, since 1870 there has sprung up a sort of defense of the system under which we are now proceeding. We are assured that the board schools are really teaching the religion we ought to believe in. The Roman Catholics are not represented in this room, and do not appear to this memorial, but their feelings and desires in the matter will have to be considered, and they have always repudiated most indignantly the idea that the religion taught in the board schools is the religion which they recognize. The objection on the part of members of the Church of England is not so intense and not so universal, but still it is very strong indeed, and, so far as I am able to judge, it is growing, not weakening, both in area and in intensity.

The Nonconformists are well satisfied with the religious teaching in the board schools. I do not grudge them the advantages they have and desire, in obtaining at the public cost a system of religious teaching which is practically their own. I do not begrudge them, and I earnestly hope that they will always have that facility; but I desire that other religious bodies should have it, too. That is why, from the point of view of religious liberty, we desire, so far as we can do it, to assist the voluntary schools in their trouble and to take the stress off them under which they are now suffering. But there is another evil that was not foreseen when the act of 1870 was passed. That is, you have confided the spending of the ratepayers' money to a body which, by its constitution, has a great interest in the expenditure, but has very little interest in frugality. We do not have this in any other part of our system. It is quite true that the school boards are very earnest educationalists, and all the members of the boards, of course, are so. I admire the motives which induced them to spend so much money as they have spent, but of course those who have to furnish the money do not feel that admiration in an unqualified degree. Just apply that to some general department of expenditure with which we are not so familiar. We know that nothing can be more upright than the desires for expenditure which are entertained by the military offices. The military office wishes to make its institution as useful and valuable and extensive as possible. It has that desire constantly before its mind. Conceive, if there was no treasury to keep the war office from gratifying its desire to the utmost limit of its wishes; conceive, if there was no treasury to prevent the war office from drawing upon the taxpayers as largely as the head of the department could wish in order to make his department as perfect as possible! That is exactly what you are doing in the case of these school boards. I feel that some check is necessary, and I sympathize with those who look upon this matter from a religious standpoint. I look also with great sympathy on the subject from the ratepayers' point of view. I can not help thinking that there has been expenditure, both of a character and upon a class, which was not intended by those who originally passed the education act, and which would have been repudiated by many. Some check is necessary. I observe what the archbishop said in regard to the unanimity with which his friends had adopted the principal recommendations that have been put forward. There is a great deal to be said for them, and I will not say a word against them. They solve all these difficulties by assuming that the chancellor of the exchequer is the point of least resistance. The proposal is able and ingenious, and, like all ingenious and able proposals, it is exceedingly simple. Although I do not now express any opinion, I venture to warn his grace that the chancellor of the exchequer is the lion in the path. I earnestly hope his grace may be—I am sure he is—animated

by liberal and sympathetic feelings toward all the voluntary schools, and I hope that his feelings may be supported by the possession of unbounded means for carrying them out. But upon that subject I am of course wholly unable to speak. We must do what we can. What we can do, we must do quickly. We must not despair if we find that time is necessary in order to give us command of the sinews of war. I can only assure you that not only do I feel very strongly the claims of the voluntary schools, but they are felt by the whole party. Though I think that the unanimity which your grace alluded to gives value to the recommendations, still the great object you have in view is the great object not only of the church, but of the party now in the majority in the House of Commons. I can only assure you that our efforts will be directed to securing the best and most efficient means which the circumstances of the times will allow us to apply in order to remedy the grievances complained of.

The week following this important conference the premier received a second deputation on the same subject, namely, that of the Wesleyan Methodists.

Less imposing in its array of dignitaries than the Anglican deputation, it represented a political force not to be ignored.

That Lord Salisbury might be duly impressed with this fact, a few statistics relative to the denomination had been presented to him before the conference. These set forth that "the number of sittings provided in Wesleyan Methodist chapels in England and Wales is 2,146,000; the number of Sunday schools, 7,096; the number of Sunday scholars, 965,222; the number of day-school departments, 786; the number of scholars therein, 168,616." The memorial of the Wesleyans was long, but its position is summed up in a few words: "That there should be no increased grant of public funds, either from the local rates or from the imperial taxes, to denominational schools, unless that increased grant is accompanied by adequate and representative public management." As to the conscience clause which, it has been assumed, protects the religious scruples of parents, the following resolution was submitted:

The experience of twenty years has shown that the conscience clause has to a considerable extent proved to be ineffectual and unreal as a protection for parents and children against religious intolerance and oppression; that, moreover, in not a few day schools of the Church of England religious intolerance and bigotry of an exceedingly offensive character are systematically taught the scholars, during the hours set apart for religious instruction, by means of a special catechism, such as it ought not to be possible to teach in connection with any public school of the nation; and that the way of appeal to the education department against such grievances is difficult, tedious, and often altogether unavailable. This committee therefore would strongly urge upon the Government that the local education authority, which is responsible for enforcing educational compulsion on children and their parents, should have authority to take cognizance of any complaints which may be made by parents or guardians of offenses against conscience or religious liberty in the conduct of any inspected school, and may make representations on the subject either to the managers of the school or to the education department, or to both these authorities, as the case may require.

The same resolution was aimed also at the evil of unsanitary school premises, which is a standing cause of complaint in rural districts. The clause relating to this matter was as follows:

Further, it shall be within the competency of the same local authority to take cognizance of the sanitary conditions of the schools within their districts which it

may be their duty to require children to attend, and to make representations on this subject to the managers of any school or to the education department, or to both these authorities.

Recalling the watchword supplied by Mr. Balfour to the Church party, Rev. Hugh Price Hughes, in the course of the conference, set forth "the intolerable strain" which the Wesleyans bear. As reported by the *School Guardian*, he stated—

that there were at least 850,000 Wesleyan Methodist children in this country who were not in their own day schools, because they lived in localities where Wesleyan day schools did not exist. There were upward of 10,000 parishes, chiefly in the rural districts, where the only day school was the Anglican school, although, as had been stated, in some of these cases the children of Wesleyan Methodist parents were in a majority. In one district in Lincolnshire, for example, there were in a certain school 188 children, 49 of whom were Anglicans and 139 Methodists. That was by no means an exceptional case in that part of the country. Unhappily, in present circumstances, they were in the painful position that their children were by law compelled to go to schools where much was taught them to which their parents conscientiously objected. If the case were reversed and Churchmen were placed in such a position in relation, say, to the Baptists, he thought that Her Majesty's Government would soon find a remedy.

Lord Salisbury, in his reply, asserted that his remedy for the religious difficulty would be "simply the multiplication of denominational schools." He added further:

If I understand aright the position of a large number of people, it is that they energetically repudiate the idea that there is, in any sense of the word in which it has been used, a common ground of religious education by which only a portion of that religious education can be taken out and the rest given in its place. I am not asking whether they are right or wrong; but I again ask you to look at it from a political point of view—the view of the statesman or politician who wishes to know how the currents of opinion are trending—and I think you will find I am right in saying that the objection to leave out what Dr. Rigg would call the indifferent parts of Anglican teaching is very much more intense now than it was thirty years ago, and that the difficulty, therefore, of providing what is called unsectarian religion that shall be sufficient for all kinds of religious belief has increased enormously in recent years, and my impression is that it is going on increasing. The tendency of discussion must be to make it increase; and therefore I look with considerable doubt and apprehension at this idea, which I am afraid many of you possess, that it is possible to solve all our difficulties by forcing all children into one common school where they should be taught what may be called the residuum of religious education.

As to the resolution quoted above, he said:

May I say one word as to resolution No. 9, which, I confess, I read with sorrow? In that resolution the Wesleyan Conference says that "religious intolerance and bigotry of an exceedingly offensive character are systematically taught the scholars during the hours set apart for religious instruction by means of a special catechism." Now, I think that that statement ought to be reconsidered. If a Jew or a Roman Catholic insists upon teaching the religion which he believes, you only say that it is a legitimate and praiseworthy exercise of his just liberty; if a Scotch Presbyterian insists upon teaching the Westminster Confession you pass the same judgment upon him; but if a Church of England clergyman insists upon teaching what he believes, you denounce him as being guilty of religious intolerance and bigotry. I have no doubt that those observations were made in perfect sincerity and with the



highest motive, but on behalf of the Church of England I must say that I do not think that they are just, and I do not think that in the meeting of a week ago, to which allusion has been made, any such judgment on our Nonconformist brethren would have been passed.

In conclusion, the premier expressed the hope that—

we shall all earnestly try to keep them apart from political bias and do what we can to solve one of the most difficult problems which ever beset any community in a manner which shall be favorable, not only to the highest interests of education, but also to religion itself. (From report of the conference, in the *School Guardian*, November 30, 1895, pp. 943-944.)

All question as to the actual purposes of the Conservative government in respect to the pledges made to the advocates of clerical schools has been answered by the education bill, a copy of which has been received as this matter comes from press. The bill was presented by Sir John Gorst March 31, 1896, and carried through the second reading May 5 by a majority of 267. It is the first measure presented with any prospect of success since 1870 which advocates a distinct departure from the settlement effected by the education law of that year.

The radical changes in the existing system that it contemplates are comprised in the following proposals:

(1) For the creation of a new local educational authority by appointment of the county council, secondary and elementary education both to be included in its province; the same, however, to supplement not supersede such existing organizations for educational purposes as "supple efficient instruction."

(2) Transfer to the same of the routine work of the central education department, i. e., distribution of public grants for education, inspection of schools, etc., leaving the department to act as a court of appeal.

(3) Measures for preventing increase of school boards and absorbing those that exist.

(4) An extra parliamentary grant to be given alike to private (voluntary schools) and the poorer board schools at the rate of 4s. per capita of attendance.

(5) The abolition of the existing limit of the government grant to 17s. 6d. per capita of attendance.

(6) Exemption of school property from rating (local property tax).

(7) Introduction of sectarian instruction into public elementary schools.

The opposition to the bill is so intense and determined that in spite of the great majority which the government controls in the house it is likely to be modified in all essential particulars if not actually withdrawn.





## CHAPTER VII.

### MANITOBA SCHOOL CASE.

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#### INTRODUCTORY STATEMENT.<sup>1</sup>

Through the courtesy of school officials in Canada this office is able to present a statement of the legal status of the Manitoba school case. The local conditions under which schools must be maintained, naturally, are not touched upon in that document; for a clearer understanding of the circumstances to which it pertains, these are here briefly considered.

In addition to the exigencies of a sparse and scattered population, and a severe winter climate, the peculiar character of the population must be taken into account. The census of 1891 showed 152,506 inhabitants in an area of 64,066 square miles, giving an average density of 2.4 a square mile. In the ten years 1881-1891, the population had increased by 145 per cent; 69 per cent of the population at the later date were natives of British America. Of the foreign born, the largest contingent were natives of Ireland.

Considered as to religion, Roman Catholics numbered 20,571, or 13½ per cent of the total population, and the Mennonites, a German sect who originally came to Canada from southern Russia, about two-thirds as many. Adherents of the Church of England formed 20 per cent of the population; Presbyterians, 25.5 per cent; Methodists, 18.5 per cent, and Baptists 10 per cent.

Rural life predominates, cities comprising less than one-fourth of the people (22.5 per cent). Winnipeg, the capital of the Province, had 25,642 inhabitants in 1891.

In spite of the many obstacles in the way, the increase of school facilities has been very marked. In the decade 1884-1894, while the school population increased by 195 per cent, the number of schools increased by 245 per cent, the teachers by 325 per cent, enrollment by 201 per cent, average attendance by 320 per cent, and the expenditure on public education by 113 per cent.

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<sup>1</sup> Prepared by Miss Anna Tolman Smith.

The following tables from the Statistical Year Book of Canada for 1894 present the statistics of public schools for the successive years since the passage of the new school law (1890):

*Educational statistics of Manitoba.*

| Year.      | Number of schools. | Number of teachers. | School population (ages 5 to 16). | Number of pupils. | Average attendance. |
|------------|--------------------|---------------------|-----------------------------------|-------------------|---------------------|
| 1890 ..... | 627                | 840                 | 25, 077                           | 23, 256           | 11, 627             |
| 1891 ..... | 612                | 866                 | 28, 678                           | 23, 871           | 12, 433             |
| 1892 ..... | 660                | 902                 | 29, 564                           | 23, 244           | 12, 976             |
| 1893 ..... | 718                | 997                 | 34, 417                           | 28, 706           | 14, 180             |
| 1894 ..... | 884                | 1, 047              | 36, 459                           | 32, 680           | 16, 260             |

In 1894 there were 744 schoolhouses in the Province, of which 627 were frame, 37 brick, 11 stone, and 69 log. The number of trees planted was 2,223.

*Receipts and expenditures.*

| Year.      | Receipts.          |                |            | Expenditures.       |                            |                     |            |
|------------|--------------------|----------------|------------|---------------------|----------------------------|---------------------|------------|
|            | Government grants. | Municipal tax. | Total.     | Teachers' salaries. | Buildings, furniture, etc. | Fuel, repairs, etc. | Total.     |
| 1890 ..... | \$99, 258          | \$255, 089     | \$426, 705 | \$200, 929          | \$61, 036                  | \$29, 163           | \$388, 981 |
| 1891 ..... | 95, 307            | 312, 396       | 502, 640   | 251, 719            | 138, 403                   | 39, 911             | 457, 231   |
| 1892 ..... | 105, 575           | 262, 297       | 500, 227   | 291, 329            | 199, 637                   | 68, 957             | 636, 592   |
| 1893 ..... | 108, 072           | 329, 562       | 760, 583   | 317, 119            | 134, 590                   | 42, 757             | 744, 178   |
| 1894 ..... | 101, 013           | 354, 963       | 975, 156   | 359, 076            | 132, 932                   | 58, 794             | 774, 865   |

The amount of debenture indebtedness was \$655,723, and the value of the school sites, houses, and furniture was estimated at \$975,112.

The conditions under which the rapidly increasing schools are maintained are indeed unique. The Reverend Principal Grant, of Queen's College, Kingston, who has made many tours of the Province, the last in the fall of 1895, writes:

In not a few sections the winters are so severe that the schools are closed from December to April, and partly to make up for that there is no midsummer vacation.

In one township (an area of 8 or 10 square miles, with a population of from 3,000 to 6,000) he found but one school, "and therefore some of the scholars have to walk more than 3 miles to reach the school." He adds:

The whole number of scholars is 12 and the attendance is sometimes 2. When I visited it the other day 6 were present. The teacher seemed to me a governess instructing the children of one family, for the 6 were of different ages, and there were three or four reading classes.

The mixture of languages encountered almost everywhere reaches the extreme in Winnipeg. Writing from the capital, Principal Grant says:

I visited two representative schools the other day. The North Central, having eleven spacious class rooms crowded with 600 pupils, and beside it the modest little frame building called the School of the Immaculate Conception, in which the Sisters of Jesus and Mary teach 90 additional pupils—the one a public school, the other once public, but struck down by the act of 1890. In the little two-roomed school thirteen nationalities sit side by side—English (including Scotch, Irish, and Welsh), English-

Canadian, French-Canadian, Métis (half-breeds), Cree (an Indian tribe), German, Dutch, Swedish, Norwegian, Russian, Polish, Hungarian, and Syrian—all being ground up into Canadian. All are drilled in English up to the second reader, and after that point has been reached an hour and a quarter a day is given to drilling in French. In the big public school hard by, in addition to the thirteen nationalities mentioned, there are Jews, Icelanders, Finlanders, and negroes. In this school English is the sole language of instruction. Be it noted that there is not the slightest language or religious difficulty in either school, though religious exercises are held in both. The Sisters are excellent teachers in all the usual subjects.

In the public school every room is closed with the religious exercise prescribed by the advisory board—that is, the reading of a passage of Scripture and prayer. I asked the principal whether many of his 600 pupils retired before these exercises commenced. He seemed almost astonished at the question. “They never thought of such a thing.”

The necessity for making English the language of the schools and yet of preserving for the natives of French descent their mother tongue is readily recognized. Beyond this there is no special language problem. Of the Icelanders Principal Grant observes:

They have so little desire to preserve their own language in the new home which they have chosen that they prefer English to Icelandic teachers, even on their reserve at Gimli. Such an attitude shows their good sense, but it is to be remembered that they have no racial or religious difficulties worth speaking of to overcome. They are not part of a famous nation with a great literature; besides, they are Protestants, and without the extreme Puritanism and Quakerism of the Mennonites.

The difficulties of obtaining properly qualified teachers, which is experienced in all newly settled regions, is increased in Manitoba by several circumstances, among which the bilingual requirement is not the least.

The Mennonites [writes our author] need teachers able to converse and teach in German and English. The Métis and French-Canadians require teachers who can converse and teach in French and English. Bilingual readers are helpful, but in practice they amount to nothing unless the teachers can use both languages freely. This is Manitoba's crux.

\* \* \* \* \*

I may mention here that I visited one rural school in Manitoba, in an English-speaking Protestant district, where a genuine surprise and a rare pleasure awaited me. The teacher was aided in his work by an excellent wife, and, both being able to speak German fluently, they asked permission from the trustees to teach the scholars in both languages, assuring them that it would be to their advantage even in learning English. The district being near a Mennonite reserve, where it was apparent that a knowledge of German would be useful, the trustees and parents consented, and now all the children in that school are learning the two languages and finding the work a pleasure as well as a profit. I hope to see the day when we shall have hundreds of such teachers in our common schools. A supply of teachers of that kind would soon settle the real educational question of Manitoba, but they are not to be had unless special means are taken to get them; such means, for instance, as accepting university graduates for common schools, as they are accepted in Scotland; the employment of a teacher in the normal school whose sole business it would be to train candidates to teach in both languages, and the granting of a bonus or an addition to the salary of every teacher passing a satisfactory examination in both languages and thereafter obtaining a school in either a French or a German district.



Persistent efforts have been made to overcome these difficulties in the Mennonite districts by Rev. Mr. Ewert, a minister of the order who came from Kansas and was appointed special school inspector.

Mr. Ewert is employed by an association of religious, patriotic Mennonites to teach a kind of provisional normal school in Gretna, and from this school a gradually increasing supply of young Canadian Mennonite teachers will be obtained. Already it has sent out about a dozen, but Mr. Ewert frankly confesses that not one of them could get a third-class teachers' certificate. When his pupils are nearing that point they are eagerly sought for either by the private schools or by public-school trustees, and the youths can not resist the temptation of getting a salary and saving up money enough to enable them subsequently to attend his school without being an expense to their parents.

\* \* \* \* \*

It may be asked here why, seeing that the training of teachers is one of the functions of the Government, this association should have the burden laid on it of paying the only Mennonite normal-school teacher in the Province. The answer will be satisfactory to those who maintain that the state is an organism which must abstain from doing work necessary to its own well being rather than be unfaithful in any respect to a modern view of the relations of church and state. The Mennonites, whether public or private school supporters, insist that their teachers shall be trained in the Mennonite faith, so that they may be able to teach it to the children. The Government can not undertake to do that, and therefore would have to stand helplessly by and do nothing were it not for the voluntary Mennonite association, which benevolently has the same object in view—a supply of good teachers acceptable to the people. Mr. Ewert teaches not only the so-called secular branches, but also the Scriptures, and, being a duly ordained Mennonite minister, he has the confidence of that portion of them who are in favor of the public-school system, though he is regarded by many of the orthodox as a dangerous man, who is likely to lead their youth astray. Notwithstanding his being a suspect to this extent, the superiority of those trained by him over the old-fashioned teachers is so manifest that the managers of the private schools are engaging as many of them as they can get. It comes to this: That a little training is better than none, and that while what is practically a Mennonite church attends to that, the Government cooperates with it by paying half the salary of the teacher, paying him, however, not as a teacher, but as inspector of the Mennonite schools.

The Government has done much also to secure good teaching. A normal school is maintained at Winnipeg, and in 1894 there were also twelve provincial and local normal schools—or institutes, perhaps we should call them. These had 75 students in attendance at long sessions and 124 at short sessions.

The Government also pursues a liberal policy in respect to salaries. An annual grant of \$130 for each public-school teacher is made by the legislature, and from \$200 to \$400 from the municipality, to which the district may add as much as the trustees think proper to ask the council to assess.

In his final report embodying the results of his mission Principal Grant thus sums up his opinion on the question at issue between the provincial and the Dominion Government:

While the Province is morally bound to take action to meet the decision of the privy council and restore their educational rights to the Catholics, the Dominion Parliament should, nevertheless, not obtrude on the provincial domain, as provincial rights are the keystone of the constitution.

## THE PRESENT ISSUE.

By HENRY R. ALLEY, *Secretary to the Minister of Education for the Province of Ontario.*

By an act of the Imperial House of Commons known as the British North America act, 1867, the provinces of Upper Canada, Lower Canada, New Brunswick, and Nova Scotia, forming part of the British territories of North America, were federally united under the title of the "Dominion of Canada." Since the date of that act (1867) the Dominion has been enlarged easterly by the addition of Prince Edward Island, and westerly by the addition of British Columbia and the acquisition of the lands known as the Northwest Territories, and sometimes as the Hudson Bay Territories. These lands embrace all the country lying between the Rocky Mountains and the Lake of the Woods. Out of this territory, in 1870, the Province of Manitoba was laid out and given the same status as any other Province in the federal system of Canada.

By the act of confederation every Province was endowed with certain exclusive powers of self-government similar to the powers of sovereignty enjoyed by the States of the American Republic. In some other matters the power of the Central Government was supreme. Owing, however, to the contention between Protestants and Catholics for many years over the question of separate schools, the federal act, as will be seen more fully later on, authorized the Central Government to supersede, if need be, the legislation of any Province in matters of education. This power the Central Government could exercise in favor of either Catholics or Protestants, and was only to be invoked when it was clear that the interests of the minority of any Province were prejudicially affected in educational matters by local legislation. These powers are described in the confederation act as powers of "remedial legislation," and apply not only to the Provinces forming part of the original federation but to others subsequently added, so that when a Province established separate schools after it became part of the federation the Dominion Government would have the right to consider to what extent the powers conferred upon them could be interfered with by the subsequent legislation of the Province. The statutes bearing upon the question are as follows:

Section 93 of the British North America act, 1867, provides as follows:

In and for each Province the legislature may exclusively make laws in relation to education, subject and according to the following provisions:

(1) Nothing in any such law shall prejudicially affect any right or privilege with respect to denominational schools which any class of persons have by law in the Province of the Union.

(2) All the powers, privileges, and duties at the Union by law conferred and imposed in Upper Canada on the separate schools and school trustees of the Queen's

Roman Catholic subjects shall be, and the same are hereby, extended to the dissentient schools of the Queen's Protestant and Roman Catholic subjects in Quebec.

(3) Where in any Province a system of separate or dissentient schools exists by law at the Union, or is thereafter established by the legislature of the Province, an appeal shall lie to the Governor-General in council from any act or decision of any provincial authority affecting any right or privilege of the Protestant or Roman Catholic minority of the Queen's subjects in relation to education.

(4) In case any such provincial law, as from time to time seems to the Governor-General in council requisite for the due execution of the provisions of this section, is not made, or in case any decision of the Governor-General in council on any appeal under this section is not duly executed by the proper provincial authority in that behalf, then, and in every such case, and as far only as the circumstances of each case require, the Parliament of Canada may make remedial laws for the due execution of the provisions of this section, and of any decision of the Governor-General in council under this section.

Section 22 of the Manitoba act, 1870, provides as follows:

In and for the Province, the said legislature may exclusively make laws in relation to education, subject and according to the following provisions:

(1) Nothing in any such law shall prejudicially affect any right or privilege with respect to denominational schools which any class of persons have by law or practice in the Province at the Union.

(2) An appeal shall lie to the Governor-General in council from any act or decision of the legislature of the Province, or of any provincial authority, affecting any right or privilege of the Protestant or Roman Catholic minority of the Queen's subjects in relation to education.

(3) In case any such provincial law, as from time to time seems to the Governor-General in council requisite for the due execution of the provisions of this section, is not made, or in case any decision of the Governor-General in council on any appeal under this section is not duly executed by the proper provincial authority in that behalf, then, and in every such case, and as far only as the circumstances of each case require, the Parliament of Canada may make remedial laws for the due execution of the provisions of this section and of any decision of the Governor-General in council under this section.

It would appear, therefore, that the Manitoba act of 1870, like the act establishing confederation, intended to confer upon the minority the right to establish separate schools—that is, schools where religious instruction could be given to the pupils under such regulations as the government of the Province for the time being thought proper, the provisions of which may now be considered. For instance, the Manitoba school act of 1871 provided for a board of education of not less than ten nor more than fourteen members, of whom one-half were to be Protestants and the other half Catholics. The two sections of the board might meet at any time separately. Each section was to choose a chairman, and to have under its control and management the discipline of the schools of the section. One of the Protestant members was to be appointed superintendent of the Protestant schools, and one of the Catholic members superintendent of the Catholic schools, and these two were to be the joint secretaries of the board, which was to select the books to be used in the schools, except those having reference to religion or morals, which were to be prescribed by the sections respectively. The legislative grant for common-school education was to be



appropriated, one moiety to support the Protestant, the other moiety the Catholic schools. Certain districts in which the population was mainly Catholic were to be considered Catholic school districts, and certain other districts where the population was mainly Protestant were to be considered Protestant school districts. Every year a meeting of the male inhabitants of each district, summoned by the Superintendent of the section to which the district belonged, was to appoint trustees, and to decide whether their contributions to the support of the schools were to be raised by subscription, by a collection of a rate per scholar, or by assessment on the property of the district. They might also decide to erect a schoolhouse, and that the cost of it should be raised by assessment. In case the father or guardian of a school child was a Protestant in a Catholic district, or vice versa, he might send the child to the school of the nearest district of the other section, and in case he contributed to the school the child attended a sum equal to what he would have been bound to pay if he had belonged to that district, he was exempt from payment to the school of the district in which he lived.

Acts amending the education law in some respects were passed in subsequent years, but it is not necessary to refer to them, as in 1881 the act of 1871 and these amending acts were repealed. The Manitoba school act of 1881 followed the same general lines as that of 1871. The number of the board of education was fixed at not more than 21, of whom 12 were to be Protestants and 9 Catholics. If a less number were appointed the same relative proportion was to be observed. The board, as before, was to resolve itself into two sections, Protestant and Catholic, each of which was to have the control of the schools of its section, and all the books to be used in the schools under its control were now to be selected by each section. There were to be, as before, a Protestant and a Catholic superintendent. It was provided that the establishment of a school district of one denomination should not prevent the establishment of a school district of the other denomination in the same place, and that a Protestant and Catholic district might include the same territory in whole or in part. The sum appropriated by the legislature for common-school purposes was to be divided between the Protestant and Roman Catholic sections of the board in proportion to the number of children between the ages of 5 and 15 residing in the various Protestant and Roman Catholic school districts in the province where schools were in operation. With regard to local assessments for school purposes, it was provided that the ratepayers of a school district should pay their respective assessments to the schools of their respective denominations, and in no case was a Protestant ratepayer to be obliged to pay for a Catholic school or a Catholic ratepayer for a Protestant school.

The scheme embodied in this act was modified in some of its details by later acts of the legislature, but they did not affect in substance



the main features, to which attention has been called. While traces of the increase of the Protestant relatively to the Catholic population may be seen in the course which legislation took, the position of the Protestant and Catholic portions of the community in relation to education was not substantially altered, though the State aid, which at the outset was divided equally between them, had, of course, to be adjusted and made proportionate to the school population which each supplied.

Passing now to the department of education, we find that the public-schools act of 1890 wrought a great change. Under the former of these, Roman Catholics were not entitled as such to any representation on the board of education or on the advisory board, which was to authorize text-books for the use of pupils and to prescribe the form of religious exercises to be used in schools. All Protestant and Catholic school districts were to be subject to the provisions of the public-schools act. The public schools were to be free and entirely nonsectarian. No religious exercises were to be allowed unless conducted according to the regulations of the advisory board and with the authority of the school trustees for the district. It was made the duty of the trustees to take possession of all public-school property which had been acquired or given for public-school purposes in the district. The municipal council of every city, town, and village was directed to levy and collect upon the taxable property within the municipality such sums as might be required by the public-school trustees for school purposes. No municipal council was to have the right to exempt any property whatever from school taxation; and it was expressly enacted that any school not conducted according to all the provisions of the act or the regulations of the department of education or the advisory board should not be deemed a public school within the meaning of the law, and that such school should not participate in the legislative grant.

Memorials and petitions were presented to the Governor-General of Canada in council, and by many other Roman Catholic inhabitants of the Province, on behalf of the Roman Catholic minority of the Queen's subjects in the Province, by way of appeal from the two acts of Manitoba of 1890 before referred to, which petitions prayed as follows:

(1) That Your Excellency the Governor-General in council may entertain the said appeal, and may consider the same, and may make such provision and give such directions for the hearing and consideration of the said appeal as may be thought proper.

(2) That it may be declared that the said acts (53 Vic., chaps. 37, 38) do prejudicially affect the rights and privileges with regard to denominational schools which Roman Catholics had by law or practice in the Province at the Union.

(3) That it may be declared that the said last-mentioned acts do affect the rights and privileges of the Roman Catholic minority of the Queen's subjects in relation to education.

(4) That it may be declared that to Your Excellency the Governor-General in council it seems requisite that the provisions of the statutes in force in the Province of Manitoba prior to the passage of the said acts should be reenacted in so far at least

as may be necessary to secure to the Roman Catholics in the said Province the right to build, maintain, equip, manage, conduct, and support these schools in the manner provided for by the said statutes, to secure to them their proportionate share of any grant made out of the public funds for the purposes of education, and to relieve such members of the Roman Catholic Church as contribute to such Roman Catholic schools from all payment or contribution to the support of any other schools, or that the said acts of 1890 should be so modified or amended as to effect such purposes.

(5) And that such further or other declaration or order may be made as to Your Excellency the Governor-General in council shall, under the circumstances, seem proper, and that such directions may be given, provisions made, and all things done in the premises for the purpose of affording relief to the said Roman Catholic minority in the said Province as to your excellency in council may seem meet.

The case then was referred to the supreme court of Canada, by which case various questions were submitted for the opinion of the court. These were as follows:

(1) Is the appeal referred to in the said memorials and petitions, and asserted thereby, such an appeal as is admissible by subsection 3 of section 93 of the British North America act, 1867, or by subsection 2 of section 22 of the Manitoba act (33 Vic. (1870), chap. 3, Canada)?

(2) Are the grounds set forth in the petitions and memorials such as may be the subject of appeal under the authority of the subsections above referred to, or either of them?

(3) Does the decision of the judicial committee of the privy council in the cases of *Barrett v. The City of Winnipeg* and *Logan v. The City of Winnipeg* dispose of or conclude the application for redress based on the contention that the rights of the Roman Catholic minority which accrued to them after the Union under the statutes of the Province have been interfered with by the two statutes of 1890, complained of in the said petitions and memorials.

(4) Does subsection 3 of section 93 of the British North America act 1867, apply to Manitoba?

(5) Has his excellency the Governor-General in council power to make the declarations or remedial orders which are asked for in the said memorials and petitions, assuming the material facts to be as stated therein, or has his excellency the Governor-General in council any other jurisdiction in the premises?

(6) Did the acts of Manitoba relating to education, passed prior to the session of 1890, confer on or continue to the minority a right or privilege in relation to education within the meaning of subsection 2 of section 22 of the Manitoba act, or establish a system of separate or dissentient schools within the meaning of subsection 3 of section 93 of the British North America act, 1867, if said section 93 be found to be applicable to Manitoba; and if so, did the two acts of 1890 complained of, or either of them, affect any right or privilege of the minority in such a manner that an appeal will lie thereunder to the Governor-General in council.

In regard to this question the supreme court were divided, three of the judges out of the five giving a negative answer to all the questions. The Roman Catholics then appealed to the judicial committee of the privy council, the highest court in the British Empire, against the supreme court of Canada, and, after argument before the privy council, judgment was given in January last to the effect that the Governor-General in council had jurisdiction to make remedial orders or declarations, and that the appeal was well founded. The privy council further stated that it was not essential that the statutes of Manitoba repealed by the act of 1890 should be reenacted, or that the precise provisions of

these acts should again be made law; or, in other words, the privy council said that it was not absolutely necessary to restore the separate-school system which was abolished by the public-schools act of 1890, in the form in which it previously existed, but that the system of 1890 might be supplemented by provisions which would remove the grievance of which the Roman Catholics complained.

On the receipt of the judgment of the privy council the Governor-General of Canada, on the advice of his council, passed a remedial order, which sets forth that it seems requisite that the system of education embodied in the two acts of 1890 should be supplemented by a provincial act or acts which would restore to the Roman Catholic minority the rights and privileges of which they were deprived by the act of 1890 so far, and so far only, as may be necessary to enable them (a) to build, maintain, equip, manage, conduct, and support Roman Catholic schools in the manner provided for by the said statutes which were repealed by the two acts of 1890; (b) the right to share proportionately in any grant made out of the public funds for the purposes of education; (c) the right of exemption of the supporters of such Roman Catholic schools from all payment or contribution to the support of any other schools.

The following is the text of the remedial order of the government of the Dominion of Canada. As this document is of considerable importance, I quote it in full:

Whereas on the 26th day of November, 1892, a petition by way of appeal, under the provisions of section 22 of chapter 3 of the acts of the Parliament of Canada, passed in the thirty-third year of Her Majesty's reign, and entitled an act to amend and continue the act 32-33 Victoria, chapter 3, and to establish and provide for the government of the Province of Manitoba (commonly called the Manitoba act), and confirmed by "The British North America act, 1871," was presented to his excellency the Governor-General of Canada, by and on behalf of the Roman Catholic minority of Her Majesty's subjects in the Province of Manitoba, which petition, among other things, alleged in effect that by certain acts of the legislature of the Province of Manitoba passed after the Union and by an act passed by the said legislature in the forty-fourth year of Her Majesty's reign, chapter 4, which may be cited as "The Manitoba school act," and by the acts amending the same, the Roman Catholic minority of Her Majesty's subjects in Manitoba acquired the rights and privileges in relation to education thereby conferred upon them, including the right to build, maintain, equip, manage, conduct, and support Roman Catholic schools in a manner provided by the said statutes, the right to a proportionate share of any grant made out of the public funds for the purposes of education and the right of exemption of such members of the Roman Catholic Church as contribute to such Roman Catholic schools from all payments or contributions to the support of any other schools.

That subsequently, in the fifty-third year of Her Majesty's reign, two statutes were passed by the legislature of the Province of Manitoba relating to education, which statutes came into force on the 1st day of May, 1890, and are entitled, respectively, "An act respecting the department of education" and "An act respecting public schools," and that the effect of the two last-mentioned statutes was to repeal the previous acts of the Province of Manitoba in relation to education, and to deprive the Roman Catholic minority of the rights and privileges which it had acquired under such previous statutes, and by the said petition the said Roman



Catholic minority prayed, among other things, that it might be declared that the said last-mentioned acts did affect the rights and privileges of the said Roman Catholic minority of the Queen's subjects in relation to education.

That it might be declared that to his excellency the Governor-General in council it seems requisite that the provisions of the statutes in force in the Province of Manitoba, prior to the passage of the said acts, should be reenacted in so far at least as may be necessary to secure to the Roman Catholics in the said Province the right to build, maintain, equip, manage, conduct, and support their schools in the manner provided for by the said statutes, to secure to them their proportionate share of any grant made out of the public funds for the purposes of education, and to relieve such members of the Roman Catholic Church as contribute to such Roman Catholic schools from all payment or contribution to the support of any other schools, or that the said acts of 1890 should be so modified or amended as to effect such purposes.

And that such further or other declaration or order might be made as to his excellency the Governor-General in council should under the circumstances seem proper, and that such directions might be given, provisions made, and all things done in the premises for the purpose of affording relief to the said Roman Catholic minority in the said Province, as to his excellency in council might seem meet. And

Whereas the 26th day of February, 1895, having been appointed for the hearing of the said appeal, and the same coming on to be heard on that day, and on the 5th, 6th, and 7th days of March, 1895, in the presence of counsel for the petitioners (the said Roman Catholic minority of Her Majesty's subjects in the Province of Manitoba) and as well for the Province of Manitoba, upon reading the said petition and the statutes therein referred to, and upon hearing what was alleged by counsel on both sides, his excellency the Governor-General in council was pleased to order and adjudge, and it is hereby ordered and adjudged, that the said appeal be and the same is hereby allowed in so far as it relates to rights acquired by the said Roman Catholic minority under legislation of the Province of Manitoba, passed subsequent to the Union of that Province with the Dominion of Canada, and his excellency the Governor-General in council was pleased to adjudge and declare, and it is hereby adjudged and declared, that by the two acts passed by the legislature of the Province of Manitoba, on the 1st day of May, 1890, entitled respectively "An act respecting the department of education," and "An act respecting public schools," the rights and privileges of the Roman Catholic minority of the said Province in relation to education prior to the 1st day of May, 1890, have been affected by depriving the Roman Catholic minority of the following rights and privileges, which previous to and until the 1st day of May, 1890, such minority had, viz:

(a) The right to build, maintain, equip, manage, conduct, and support Roman Catholic schools in the manner provided for by the said statutes, which were repealed by the two acts of 1890 aforesaid.

(b) The right to share proportionately in any grant made out of the public funds for the purposes of education.

(c) The right of exemption of such Roman Catholics as contribute to Roman Catholic schools from all payment or contribution to the support of any other schools.

And his excellency the Governor-General in council was further pleased to declare and decide, and it is hereby declared, that it seems requisite that the system of education embodied in the two acts of 1890, aforesaid, shall be supplemented by a provincial act or acts which will restore to the Roman Catholic minority the said rights and privileges of which such minority has been deprived as aforesaid, and which will modify the said acts of 1890 so far, and so far only, as may be necessary to give effect to the provisions restoring the rights and privileges in paragraphs (a), (b), and (c) hereinbefore mentioned.

Whereof the lieutenant-governor of the Province of Manitoba for the time being, and the legislature of the said province, and all persons whom it may concern, are to take notice and govern themselves accordingly.



The legislature of Manitoba met on the 14th of June, 1895, and after a full discussion of the remedial order the following reply to the Dominion Government was adopted on the 19th of June:

The privileges which by the said order we are commanded to restore to our Roman Catholic citizens are substantially the same privileges which they enjoyed previously to the year 1890. Compliance with the terms of the order would restore Catholic separate schools with no more satisfactory guaranties for their efficiency than existed prior to the said date.

The educational policy embodied in our present statutes was adopted after an examination of the results of the policy theretofore followed under which the separate Roman Catholic schools (now sought to be restored) had existed for a period of upward of nineteen years. The said schools were found to be inefficient. As conducted under the Roman Catholic section of the board of education they did not possess the attributes of efficient modern public schools.

Their conduct, management, and regulation were defective; as a result of leaving a large section of the population with no better means of education than was thus supplied, many people grew up in a state of illiteracy. So far as we are aware there has never been an attempt made to defend these schools on their merits, and we do not know of any ground upon which the expenditure of public money in their support could be justified.

We are therefore compelled to respectfully state to your excellency in council that we can not accept the responsibility of carrying into effect the terms of the remedial order.

Objections upon principle may be taken to any modification of our educational statutes which would result in the establishment of one or more sets of separate schools. Apart, however, from the objections upon principle, there are serious objections from a practical educational standpoint. Some of these objections may be briefly indicated:

We labor under great difficulties in maintaining an efficient system of primary education. The school taxes bear heavily upon our people. The large amount of land which is free from school taxes, and the great extent of country over which our small population is scattered, present obstacles to efficiency and progress.

The reforms effected in 1890 have given a strong impetus to educational work, but the difficulties which are inherent in our circumstances have constantly to be met. It will be obvious that the establishment of a set of Roman Catholic schools, followed by a set of Anglican schools and possibly Mennonite, Icelandic, and other schools, would so impair our present system that any approach to even our present general standard of efficiency would be quite impossible. We contemplate the inauguration of such a state of affairs with very grave apprehension. We have no hesitation in saying that there can not be suggested any measure which to our minds would more seriously imperil the development of our Province.

We believe that when the remedial order was made there was not then available to your excellency in council full and accurate information as to the working of our former system of schools.

We also believe that there was lacking the means of forming a correct judgment as to the effect upon the Province of changes in the direction indicated in the order.

Being impressed with this view, we respectfully admit that it is not yet too late to make a full and deliberate investigation of the whole subject. Should such a course be adopted, we shall cheerfully assist in affording the most complete information available. An investigation of such a kind would furnish a substantial basis of fact upon which conclusions could be formed with a reasonable degree of certainty.

It is urged most strongly that upon so important a matter, involving as it does the religious feelings and convictions of different classes of the people of Canada, and the educational interests of a Province which is expected to become one of the

most important in the Dominion, no hasty action should be taken, but that, on the contrary the greatest care and deliberation should be exercised, and a full and thorough investigation made.

While we do not think it proper to enter upon a legal argument in this memorial, we deem it our duty to briefly call attention to some of the legal and constitutional difficulties which surround the case. It is held by some authorities that any action taken by the Parliament of Canada upon the subject will be irrevocable. While this opinion may or may not be held to be sound, it is, in our judgment, only necessary to point out that there are substantial grounds for entertaining such an opinion, in order to emphasize the necessity for acquiring a most ample knowledge of the facts before any suggestion of parliamentary action is made.

It will be admitted that the two essentials of any effective and substantial restoration of Roman Catholic privileges are—

(1) The right to levy taxes.

(2) The right to participate in the legislative school grant.

Without these privileges the separate schools can not be properly carried on, and without them, therefore, any professed restoration of privileges would be illusory.

It may be held that the power to collect taxes for school purposes conferred upon school boards by our former educational statutes was conferred by virtue of the provisions of subsection 2 of section 92 of the British North America act and not by virtue of the provisions of section 22 of the Manitoba act. If this view be well founded, then that portion of the act of 1890 which abolished the said right to collect taxes is not subject to appeal to your excellency in council, and the remedial order and any subsequent legislative act of the Parliament of Canada (in so far as they may purport to restore the said right) will be *ultra vires*.

As to the legislative grant, we hold that it is entirely within the control of the legislature of the Province, and that no part of the public funds of the Province could be made available for the support of separate schools without the voluntary action of the legislature. It would appear, therefore, that any action of the Parliament of Canada looking to the restoration of Roman Catholic privileges must, to be of real and substantial benefit, be supplemented by the voluntary action of the provincial legislature.

If this be the case, nothing could be more unfortunate, from the standpoint of the Roman Catholic people themselves, than any hasty or peremptory action on the part of the Parliament of Canada, because such action would probably produce strained relations and tend to prevent the possibility of restoring harmony.

We respectfully suggest to your excellency in council that all of the above considerations call most strongly for full and careful deliberation, and for such a course of action as will avoid irritating complications.

We deem it proper, also, to call attention to the fact that it is only a few months since the latest decision upon the subject was given by the judicial committee of the privy council. Previous to that time a majority of the members of the legislative assembly of Manitoba had expressly or impliedly given pledges to their constituents which they feel in honor bound loyally to fulfill.

We understand that it has been lately suggested that private funds of the Roman Catholic Church and people had been invested in school buildings and land that are now appropriated for public-school purposes. No evidence of such fact has ever been laid before us, so far as we can ascertain, but we profess ourselves willing, if any such injustice can be established, to make full and fair compensation therefor.

Owing to the differences of opinion among the members of the Government of the Dominion of Canada as to what course was best to pursue, the House of Commons adjourned until the month of January, 1896, with a view to take such action as may seem proper after having taken time fully to consider the question in all its bearings.

The following events, which have occurred since the foregoing account was written, bring the history of this case to date:

On December 23, 1895, Premier Greenway announced that the people of Manitoba should have an opportunity at a general election to express their sentiments on the school issue. Accordingly, the provincial legislature on the 26th of December approved an answer to the Dominion Government definitely rejecting the Dominion's request that Manitoba should enact a remedial law. The Manitoba legislature was thereupon dissolved, and the appeal was taken directly to the people. The election was held on the 15th of January, and it resulted in an overwhelming triumph for Mr. Greenway and his policy of nonsectarian schools.

The Dominion Parliament assembled January 2, on which day Lord Aberdeen, as Governor-General, had presented his address to the lawmakers, and had strongly urged the necessity of compelling Manitoba to submit. It turned out that the Dominion cabinet was seriously divided on the subject, and on January 4 half of the ministers resigned their portfolios. For a few days it seemed probable that Sir Mackenzie Bowell would be unable to reorganize the cabinet and would have to resign his position as prime minister. Sir Charles Tupper, sr., was slated as Mr. Bowell's successor. Largely, however, through the efforts of Lord Aberdeen and of Mr. Joseph Chamberlain, in his capacity as British colonial secretary, the cabinet breach was mended, the retiring ministers were induced to withdraw their resignations, a place in the cabinet was found for Sir Charles Tupper, sr., and Sir Mackenzie Bowell remains at the helm. It is difficult to see what solution can be found for the deadlock. (*Review of Reviews*, February 1896, p. 147.)

## CHAPTER VIII.

### EDUCATION IN FRANCE.<sup>1</sup>

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*France, Republic.*—Area, 204,092 square miles. Population (actual), April 12, 1891, 38,095,156; domiciled or legal, 38,343,193.

*Civil divisions.*—For purposes of civil government, France is divided into 86 departments (90, if Algiers be included), each having its local legislative assembly formed by election. The departments are subdivided into arrondissements and these into cantons. The smallest civil divisions comprised within the cantons are communes.

For previous articles see the following:

The educational system of France. (Report, 1888-89, Vol. I, pp. 112-149.)

Report of the educational congresses and exhibition held in Paris, 1889. (Ibid., pp. 41-186), by W. H. Widgery (see Table of Contents, pp. 42-43).

Brief view of the educational system, with statistics, for 1888-89. (Ibid., pp. 249-261.)

Elementary education in London and Paris. (Ibid., pp. 263-280.)

Education in France: Statistics, 1890-91; progress of primary schools since Guizot's law, 1833; higher primary and classical schools of France. (Report, 1890-91, Vol. I, pp. 95-124.)

Education in France: Outline of the system and statistics for 1892; State faculties; proposed transformations and development of teaching functions. (Report, 1891-92, Vol. I, pp. 73-95.)

Civil service in France, by W. F. and W. W. Willoughby. (Ibid., pp. 369-412.)

Education in France: Outline view, with current statistics; inspection of infant schools; recent changes in the baccalaureate; reorganization of medical studies, and of the scientific course preparatory thereto. (Report, 1892-93, Vol. I, pp. 219-237.)

*TOPICAL OUTLINE.*—*General features of the system, with current statistics—Recent modifications in the department of secondary instruction—Recent development of the faculties—Correlation of courses—Higher education of women—Progress of the primary school system as shown by successive laws and statistics—Movements for promoting the instruction of adults—Movement for admitting American students as candidates for degrees in the universities of France.*

#### GENERAL FEATURES OF THE EDUCATIONAL SYSTEM.

The system of education maintained by the French Republic preserves many of the administrative features of the Imperial University. The official head of the system is a cabinet officer, the minister of public instruction, fine arts, and worship.<sup>2</sup> His authority is modified by the

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<sup>1</sup> Prepared by Miss Anna Tolman Smith.

<sup>2</sup> M. Leygues was appointed to the office June, 1894, and was succeeded January 26, 1895, by M. Poincaré, who, in turn, was succeeded November 1, of the same year, by M. Combes.



advice of professional experts, constituting the superior council of public instruction. A tendency toward decentralization is at present manifest throughout the system.

Administration is facilitated by the subdivisions of the system.

On the basis of scholastic grade it is divided into three great departments—primary, which includes infant schools (ages, 2 to 6), primary schools (elementary and superior, ages 6 to 13), adult schools, and normal schools for primary teachers; secondary, to which belong the lycées (State classical colleges) and communal colleges; superior, which comprises special schools<sup>1</sup> and the faculties for liberal education and professional training, at present 59 in number.

Each of the three departments has its own chief or director,<sup>2</sup> its separate budget and distinct body of laws, decrees, etc.

Local divisions result from the organization of the universities (faculties), colleges, and schools comprised in the system into academic groups (17 in number) each under its own chief or rector.

The enrollment in the several classes of institutions for the latest years reported were as follows: 1891-92, infant schools, 679,579; primary schools, 5,556,470. Lycées and communal colleges for boys, public, 85,291; private, 89,566; for girls, public secondary, 11,605. University faculties (1893), public, 23,397 students; private, 988.

The obligatory expenses of the service are covered substantially by an annual appropriation from the State, amounting in 1893 to \$33,699,943; of this amount 77.8 per cent was for primary instruction. The total expenditures for this department amounted in 1892 to \$37,261,215. This includes, besides the obligatory expenses of the primary schools, i. e., \$29,768,033, the optional expenditures, costs of local inspection, and the expenditure for departmental normal schools.

The scholastic work of all public establishments is regulated by law or by official decrees that embody the matured opinions of the superior council of education, a representative body of 60 members, three-fourths of whom are elected by their peers from the various orders of public instruction, the remainder being appointed by the President. The council is not only an advisory, but also a judicial body, being the final court of appeal in certain cases of contention; as, for example, cases of the removal of teachers by local authorities. Paris is the seat of the council, whose deliberations are presided over by the minister. The academic rectors have the advice of academic councils composed of

<sup>1</sup> The special schools which are under the exclusive control of the minister of public instruction and fine arts are the Collège de France, Muséum d'Histoire Naturelle, École Normale Supérieure, École Française de Rome, École Française d'Athènes, École Nationale des Chartes, École Spéciale des Langues Orientales Vivantes, École Nationale et Spéciale des Beaux Arts à Paris, Conservatoire National de Musique et de Déclamation.

<sup>2</sup> The present incumbents are: M. Louis Liard, superior; M. Rabier, secondary; M. F. Buisson, primary.

"inspecteurs d'académies," professors, and teachers; finally, the prefects are assisted by departmental councils. These several councils save the work of public education, to some degree at least, from the mechanical routine which is one danger of a centralized system.

All appointments to the service, whether official or professional, are made either by the minister or by the President of the Republic, excepting only those of elementary teachers. They are appointed by the heads of departments (prefects, themselves appointed by the President). The officers of administration form an educational hierarchy whose successive stages are open only to candidates who pass examinations and secure the required diplomas or degrees. Promotions are generally the reward of distinguished service or the recognition of superior merit. Officials, professors, and teachers all receive their salaries from the State.

Secondary and superior institutions have more immediate relation with the central administration than primary schools.

#### RECENT MODIFICATIONS IN THE DEPARTMENT OF SECONDARY INSTRUCTION.

The most important recent measures affecting secondary institutions are the decrees of August 8, 1890, and of June 4, 1891 (discussed in full in the Commissioners' report for 1890-91). The decree of August 8, an outcome of efforts begun in 1872 by Jules Simon, at that time minister of public instruction, reorganizes the classical course of the lycée. The trifurcation, which formerly took place after troisième, i. e., the sixth year of the lycée course, is abolished, and a single degree of bachelor is substituted for the three orders previously existing. All students must now pursue the same course to the end of rhetoric, or the eighth year, when the first examination for the bachelor's degree takes place. In the remaining year (philosophy) options are allowed, and according to the choice then made he who successfully passes the final examination will have his diploma inscribed, "Lettres, philosophie," "Lettres, mathématiques," or "Lettres, sciences physiques et naturelles." The measures which have thus simplified the plan of studies aimed also at readjustments which should give the natural sciences equal recognition with the classics. The failure of this effort shows the inherent tenacity of the traditional course. Latin and Greek, which declined slightly in 1880 in favor of history, geography, and science, have since gained increased time. The efforts to relax the rigid uniformity of the lycée programmes and the mechanical routine of student life have been more successful. Opportunity is now given the principals (provisours) to develop individual characteristics in their respective lycées.

The decree of June 4, 1891, relates to the nonclassical course of the lycées. The name of this course is changed from "enseignement secondaire spécial" to "enseignement secondaire moderne." In the read-

justment of the studies the technical or commercial character has given way to the educative. The claim is made that the course, "although modern is classic." This claim is based upon the proposed method of treating the modern languages and literature, especially French. On the grammatical side the historical development of the language is to be considered, while the study of the several literatures is to be made wholly from authors of the highest order.

The most original feature of the course is the expedient for placing minds on the historic plane. This is to be done by interpretations of the master works of antiquity, based upon translations. The interpretations are to be presented by professors thoroughly acquainted with the original, and able, if need be, to translate as they interpret. Thus, while modern languages and literature are the center of the programme, they will not be wholly detached from historic relations.

Students who complete the course receive a diploma "*baccalauréat de l'enseignement secondaire moderne*" upon the successful passing of two examinations at an interval of three months. The second of these examinations is divided into three orders, between which the candidate may choose. According to the choice, his diploma is inscribed, "*Lettres, philosophie*," "*Lettres, sciences*," or "*Lettres, mathématiques*."

#### RECENT DEVELOPMENT OF THE FACULTIES (UNIVERSITIES).

The faculties are institutions of superior instruction corresponding to the universities of other countries. They comprise groups of professors, whose function it is to maintain courses of advanced instruction and to examine for and confer degrees. From their organization by Napoleon until a very recent date it was the latter service that gave dignity and importance to these bodies. The development of teaching functions and of autonomous powers are features of their later history.

By a decree of 1885, authorizing them to receive, hold, and administer property, civic personality was conferred upon the faculties, and the work of organization was begun by the creation of a council-general of all the faculties (*conseil général des facultés*) of an academic district and a general assembly and a council of each individual faculty. The council-general consists of the deans of the faculties, together with two representatives from each faculty, chosen by their colleagues. It is presided over by the academic rector. This body regulates scholastic affairs of general interest to all the faculties represented therein, and has control of their finances. The general assembly of each faculty, which comprises all the members of the same, arranges the details of the courses of instruction. The council, which comprises only titular professors and "*professeurs adjoints*," receives gifts and legacies on behalf of the faculty and distributes its revenues. This council also has a voice in the choice of professors, appointments to the respective faculties being made by the President of the Republic from two lists, one submitted by the faculty council, the other by the superior council



of public instruction. The movement for reorganizing the faculties has culminated in a measure for transforming them into independent universities, a bill to that effect being now before the French Chambers.

Meanwhile, efforts for the extension of the powers and scope of the several faculties are constantly in progress. The decrees of July 31, 1893, pertaining to the medical course were discussed in the Commissioner's preceding report. They require students to obtain a special certificate of physical, chemical, and natural sciences in addition to the bachelor's degree before entering upon a medical course. Provision for special scientific instruction leading to the certificate is to be made in the faculties of sciences, which thus derive new importance in the scheme of university work.

The faculties of law have been the subject of revision during the present year. By a decree dated April 8, 1895, the doctorate of law was established in two forms, i. e., the doctorate of legal science and the doctorate of political and economic science. This is the successful termination of efforts reaching as far back as 1789 to secure state recognition and support for studies that pertain essentially to the conditions of modern society. The decree also permits elective courses to a limited extent. The student of legal science, in preparing for his final examination, beside the required subjects in civil law, may make choice between criminal law, administrative law, and international public law. The student of political and economic science may, in like manner, choose between industrial legislation, rural legislation, and colonial legislation, or an equivalent course in history or economics given in another faculty.

The standard of legal instruction, which has always been high, is in no wise lowered by the changes. Students must, as before, secure the bachelor's diploma in the classical course before entering upon their legal studies. The legal course itself is arranged still for four years—i. e., one for the baccalaureate, two for the licencié, and one for the doctorate. The actual duration of the studies is generally five years.

*Correlation of courses.*—The courses of study for secondary and superior institutions are elaborated in the superior council, due consideration being given to the opinions of the several faculties which are formally submitted by the academic rectors. These courses form a continuous scheme of study, starting at an elementary stage (i. e., for pupils 8 years of age) and comprising the entire province of general and special knowledge.

The ideal of unity which is typified in the administrative service of the system of education finds higher realization in the correlation of the courses of study. Students of liberal and professional education are drawn chiefly from the higher classes of society; nevertheless these courses have been brought within the reach of the common people since the lycées have been affiliated on one side (i. e., enseignement



secondaire moderne) to the primary schools. This provision, moreover, has been made available by public scholarships open to competitive examination.

The course of the lycées leads to the bachelor's degree, which is the first of the series of university degrees, i. e., bachelor, licencié, and doctor. Candidates for degrees must be inscribed in the faculty corresponding to the degree sought, pay the required fees, and sustain the examinations. Only those who take inscriptions, as it is called, are classed as students. In addition, large companies of hearers attend the lectures of the professors. Candidates for degrees may pursue their studies either under the faculties, in special schools, or under private tuition.

The bachelor's degree stamps one as a man of liberal culture; it is moreover, a necessary prerequisite to the higher degrees (licencié and doctor), which are the passports to professional and official careers.

*Higher education for women.*—It should be noted that women are admitted to the privileges and honors of the higher courses.

From 1875-76 to 1887-88, inclusive, university degrees to the number of 262 were granted to women. These included 39 in medicine, 130 in the sciences, 89 in classics and belles-lettres, 1 in pharmacy, and 3 in law. Of the whole number, 137 were obtained in Paris and the remainder in the provinces; 207 were conferred upon French women. Women pursue degree courses in the state faculties or under private auspices. They form also a large proportion of the auditors at the public lectures of the faculty professors and of the Collège de France.

#### PROGRESS OF THE SYSTEM OF PRIMARY EDUCATION.

The series of official reports (statistiques) relating to primary education shows very clearly the development of the department since the passage of Guizot's law of 1833. This early measure, to whose support Louis Philippe was won by the zeal of its author, has been the basis of all subsequent legislation on the subject.

By placing upon the commune the obligation to maintain at least one public school and to provide for the free tuition of indigent children, the law assured the permanence and extension of the system.

The dignity of the teaching profession was asserted by the clause of the law requiring from teachers guaranties both of their moral character and professional training (i. e., "brevet de capacité") and by the provision of normal schools to be maintained at the expense of the departments.

Upon these lines the system of public instruction has been extended by the Republic, while at the same time the central control has been greatly strengthened.

The first measure of the present Government relative to primary instruction was the law of June 1, 1878, which placed about \$24,000,000 at the disposition of the minister of public instruction for the purpose

of aiding the communes in erecting schoolhouses. One-half the sum formed a gratuitous subvention to the communes; the other half was to be used as a loan, payable in small annual installments, thirty-one years being allowed to meet the indebtedness. The policy was renewed by successive laws until 1885, when the gratuities were discontinued, but provision was still made for loans to needy communes upon terms precisely defined.

From a special inquiry instituted before the law was framed it appeared that about 17,300 new buildings must be erected, about 3,000 bought, and 13,000 enlarged or repaired if all the children of school age in the 36,000 communes were to be provided for.

In the decade 1873 to 1888 11,632 school buildings were built or purchased, and at the present time school provision is substantially complete.

In 1879 a law was passed requiring each department to maintain a normal school for women in addition to the school for men, provided under the law of 1833. This provision has been complied with by 85 out of 90 departments. The law of June 16, 1881, obliging all teachers to secure a State diploma (*titre de capacité*), completed the measures for insuring professional qualification in the teaching service. A second law, bearing the same date, June 16, 1881, abolished school fees and made instruction gratuitous. The year following, March 28, 1882, the law was passed making the schools secular and obliging parents to secure the instruction of their children. Finally, the law of October 30, 1886, determined the classification of schools and the subjects of instruction, defined exactly the qualifications for teachers, confirmed the secular character of the schools by forbidding the employment of teachers belonging to a religious order, placed the schools under the inspection of (1) local officials—the communal mayor and committees and members of the departmental council delegated for the purpose—(2) under a graded series of Government officials—inspectors of primary schools, the academic inspectors, and the inspectors-general.

The delegates appointed by the departmental councils confer with the communal authorities and with the primary inspectors as to sites, buildings, material, etc. The mayors of communes have free access to the schools at all times; their duties and those of the delegates are much like those of our district-school committees, excepting that they have no control over teachers or programmes. It is incumbent also upon communes to maintain funds (*caisses des écoles*) for the assistance of indigent pupils. The law of March 28, 1882, obliges parents to secure the instruction of their children; they can, however, make choice of the means—either in public schools, private schools, or by home tuition.

## SUBJECTS AND COURSES OF INSTRUCTION.

The subjects of instruction for primary schools, as fixed by the law of March 28, 1882, comprise moral and civic instruction, reading, writing, the elements of arithmetic and the metric system; history and geography, especially of France; object lessons, and the first notions of science; elements of design, of singing, manual work (needlework in the schools for girls), gymnastic exercises, and in the schools for boys military drill.

In the superior primary schools, which in 1891-92 were attended by 45,599 pupils, these branches of instruction are reviewed and more fully developed. The course is extended to include algebra and geometry; natural science and physics, and their application to agriculture, to industrial arts, and to hygiene; political economy, French language and literature, general history, industrial and commercial geography, iron and wood work for boys, and cutting and fitting for girls. One foreign language is also included. Additional courses pertaining to local industries may be authorized by the minister upon the demand of local committees, supported by the academic inspector and approved by the departmental council.

In the primary (departmental) normal schools the studies of the primary course are reviewed with reference to methods of instruction, and at the same time developed to include the full scope and scholastic bearing of those subjects. Pedagogy and school administration are treated both theoretically and practically.

Instruction in the following subjects is given outside the regular class hours: In the normal schools for men, agriculture and manual work, military and gymnastic exercises, vocal and instrumental music; in the normal schools for women, needlework, housework and gardening, gymnastics, and vocal and instrumental music. The course of study in these schools covers three years.

The progress of education is fostered by many auxiliary agencies, both public and private. The most important of the former as regards the interests of primary education is the Musée Pédagogique. This includes a museum and a library for the collection of all material and publications which may aid the work or the researches of persons engaged in primary instruction. Here, also, classes and courses of lectures for teachers are maintained, and publications issued which make known the best methods of instruction, the best plans for the construction and equipment of schoolhouses, and the results of many valuable historical investigations.<sup>1</sup>

<sup>1</sup>For detailed account of the Musée Pédagogique, see article by M. Beurier, *Mon. Péd.*, Tome III, pp. 3-38

The following table shows the enrollment, absolute and relative to population, and the number of teachers at the specified dates from 1837 to 1891-92, inclusive:

| Years.        | Pupils.          |           |                    |                                      | Teachers. |        |                  |
|---------------|------------------|-----------|--------------------|--------------------------------------|-----------|--------|------------------|
|               | Number enrolled. |           |                    | Number for every 10,000 inhabitants. | Men.      | Women. | Total.           |
|               | Boys.            | Girls.    | Total.             |                                      |           |        |                  |
| 1837 .....    | 1,579,888        | 1,110,147 | 2,690,035          | 752                                  | 39,302    | 20,433 | 59,735           |
| 1843 .....    | 1,812,709        | 1,351,588 | 3,164,297          | 924                                  | 47,301    | 28,234 | 75,535           |
| 1850 .....    | 1,793,667        | 1,528,756 | 3,322,423          | 967                                  |           |        |                  |
| 1861 .....    |                  |           | 4,286,641          | 1,147                                |           |        |                  |
| 1866 .....    | 2,343,781        | 2,172,186 | 4,515,967          | 1,186                                |           |        |                  |
| 1872 .....    | 2,445,216        | 2,277,598 | 4,722,754          | 1,363                                | 50,549    | 59,689 | 110,238          |
| 1876-77 ..... | 2,400,882        | 2,316,053 | 4,716,935          | 1,281                                | 51,717    | 58,992 | 110,709          |
| 1881-82 ..... | 2,708,510        | 2,632,701 | 5,341,211          | 1,418                                | 56,410    | 66,350 | 122,760          |
| 1886-87 ..... | 2,829,127        | 2,277,792 | <i>a</i> 5,596,919 | 1,446                                | 64,039    | 74,616 | <i>b</i> 138,655 |
| 1891-92 ..... | 2,805,849        | 2,750,621 | <i>c</i> 5,556,470 | 1,434                                | 80,311    | 66,363 | 146,674          |

*a* Including 70,554 in Algiers.

*b* Including 1,840 in Algiers.

*c* Including 85,068 in Algiers.

On account of the changes made in the financial system it is extremely difficult to carry a comparative statement of expenditure further back than 1887. The total expenditure in that year was 173,241,057.85 francs (\$33,435,524), and rose to 186,306,073.39 francs (\$35,957,073) in 1892. These amounts were derived as follows: In 1887, from the State, 49 per cent; from the departments, 16.05; from the communes, 34.95 per cent; in 1892, from the State, 87.9; from the communes, 12.1 per cent.

The great increase in the part of the expenditure borne by the State is due to the financial legislation of 1889 under which the State assumed the charge of the teachers' salaries, and also of the ordinary expenditure for the departmental normal schools.

The totals given above include the expenditure for normal schools, 9,741,017.67 francs in 1887, and 9,284,241.72 francs in 1892, and also certain optional expenditures which fluctuate greatly from year to year.

If these items be deducted, the ordinary expenditure for primary schools stands at 121,545,868.70 francs (\$23,458,353) in 1887, and in 1892 at 171,395,206.64 francs (\$33,079,275).

The former amount was equivalent to 3.18 francs (61 cents) per capita of the population, and to 24.48 francs (\$4.82) per capita of pupils enrolled, the latter to 4.43 francs (85 cents) and 36.20 francs (\$6.98), respectively.

The foregoing statistics are confined to particulars which pertain to all systems. The additional tables that follow relate to features that are peculiar to the French system.

Under the Republic only public schools derive their support from public funds, and they are, as we have seen, closed against clerical influences. The distribution of pupils in the several classes of schools, i. e., public and private, lay or secular and clerical, indicates, therefore, to some extent the strength of the Government policy.



*Distribution of pupils in the several classes of schools.*

| Year.        | Public.     | Private.    | Secular.    | Clerical.   |
|--------------|-------------|-------------|-------------|-------------|
| 1837.....    | 2, 046, 455 | 643, 580    | .....       | .....       |
| 1843.....    | 2, 407, 425 | 756, 872    | 2, 457, 380 | 736, 917    |
| 1850.....    | 2, 601, 619 | 720, 804    | 2, 368, 627 | 953, 796    |
| 1861.....    | .....       | .....       | 2, 744, 667 | 1, 541, 974 |
| 1866.....    | 3, 537, 709 | 978, 258    | 2, 820, 670 | 1, 695, 297 |
| 1872.....    | 3, 835, 991 | 886, 763    | .....       | .....       |
| 1876-77..... | 3, 823, 348 | 893, 587    | 2, 648, 562 | 2, 068, 373 |
| 1881-82..... | 4, 359, 256 | 981, 955    | 3, 567, 861 | 1, 773, 350 |
| 1886-87..... | 4, 565, 109 | 1, 091, 810 | 3, 877, 185 | 1, 719, 734 |
| 1891-92..... | 4, 281, 183 | 1, 275, 287 | 3, 909, 977 | 1, 655, 493 |

## SCHOOLS FOR ADULTS.

The most important recent movement affecting popular education is that for the increase and improvement of schools and courses of instruction for adults. Schools or classes of this kind have been sustained in France by the church or by private effort for nearly two centuries. Their importance was recognized by Guizot, although they were not mentioned in his law for primary instruction (1833). From time to time State appropriations were granted for this work, and by the law of March 15, 1850, the creation of public adult courses was authorized at the option of the communes. At that date such courses had already been established in 6,913 communes and enrolled 117,000 students. The provision declined under the political disturbances of 1849 and 1850, but during the second empire regained new vigor under the fostering care of M. Duruy. Through his efforts, while minister of public instruction, the law of April 10, 1867, was passed, assuring a State subvention to the classes for adults. Under this impulse the number of courses was raised to 23,586, with an enrollment of 800,000. The improvement was but temporary. During the early years of the present Republic the number of courses and of pupils in attendance declined and the State appropriations were correspondingly diminished. One of the principal causes of this retrogression appears to have been the want of a systematic organization of the classes; it was left to M. Gréard, the distinguished chief of the Paris Academy, to inaugurate a reform in this respect.

In accordance with the principles laid down by M. Gréard, the prefect of the Seine issued an order in 1877 providing for the reorganization of adult courses in the capital. The courses of general instruction were separated from technical courses for apprentices and were graded in three classes—elementary, intermediate, and superior. A diploma, or special certificate of primary studies, was created, open to pupils of at least 16 years of age. Finally an annual gratuity of 600 francs was assured to the teacher in place of a grant calculated upon the average attendance at his class.

The laws of 1882 relative to public instruction made no mention of adult schools. These laws, it has been observed, "reorganized but at

the same time decapitated public education." They kept the children from the sixth through the twelfth year under a severe discipline, filled them with ideas upon all subjects of knowledge, but, the twelfth year accomplished, plunged them into life without any further purpose or end than the regiment for men and death for women. The evils of this freedom were foreseen by Jules Ferry, and his influence is traceable in the decrees of 1884, issued under the ministry of M. Fallières. By these decrees every commune was authorized to establish a class for adults, the expenses to be borne half by the State and half by the commune.

As a result of this effort 36,000 classes were opened within a year. The avowed purpose of the classes was to overcome illiteracy in youth above the legal school age, 13 years, and the subjects taught were the same as in the elementary schools. As time passed the compulsory law with free schools brought all children into the schools, illiteracy was reduced to a minimum, and the original cause for the maintenance of adult courses was removed. In 1894 they had fallen to 7,000, or a decline of 80 per cent in a decade. Meanwhile it appeared that the proportion of conscripts, who, although not totally illiterate, had a mere smattering of letters, was constantly increasing, and that there was an alarming prevalence of crime among adolescent youths. A well-known essayist, M. Béranger, writes:

This is the gravest social danger that menaces the secular state.

Between 11 and 20 years, the age of developing puberty, when conscience is disturbed, when the character is forming, the youth of the common classes are socially abandoned.

The clerical party have not been slow to take up the cry and accuse the state of having destroyed the moral safeguards which the church formerly threw around wayward and irresponsible youth.

That the evils complained of are real does not seem to be questioned, and the Government is aroused to the necessity of continuing some form of guidance and control through the years of adolescence. The schools or classes for adults naturally offer the means for this prolonged guardianship, but it is not the school limited to elementary subjects and routine methods that can be relied upon to influence, restrain, and direct the energies of young men and women. These schools must be reorganized, made attractive, and of practical utility if they are to accomplish their new mission. The question is exactly the same that has recently been discussed in England with the result that the evening schools of that country have been completely transformed. Some such course must apparently be taken in France. The Government began the work by a special investigation committed in March last (1895) to M. Edouard Petit, a professor in one of the Paris lycées. He was instructed to make an exhaustive inquiry into all the conditions bearing upon the instruction of adults, and to report to the minister in full the results of his investigation. The mission was ably fulfilled, and the report covers fully all questions of methods, programmes, instruc-

tion, apparatus, finances, etc., that must be settled before the work of reorganization actually begins.

M. Petit found it impossible to secure exact information as to the number of adult courses in actual existence. He estimates it at ten or twelve thousand, and finds everywhere that primary teachers are ready to undertake the work. In respect to programmes, peculiar difficulties arise from the passion of the people for unity, order, and exact rules, and their constant habit of depending upon these. To be effective, it is necessary, as M. Petit observes, that these courses should be "infinitely varied." He would advise, therefore, a "sort of general plan" which may serve as a guide to the instruction, but leave the details to be determined by time and circumstance.

The methods of instruction must be varied, like the programmes; some subjects ought to be treated by courses of connected lessons which should last at least three months with three sessions a week, each occupying one and a half hours. Conferences—that is, exercises in which the students discuss the subject with the teachers—should be a little longer. As to illustrated lectures, scientific demonstrations, etc., these must be left to the discretion of the managers. Heretofore, only elementary teachers have been engaged in the work of adult instruction. M. Petit would enlist, also, the professors of secondary and superior instruction, and even specialists who are outside of the university. Thus the adult courses would become a means of uniting the three orders of instruction. As to auxiliary aids in the work of instruction, M. Petit emphasizes the importance of public libraries and of apparatus, and particularly the use of the magic lantern ("projections lumineuses"). "The magic lantern," he says, "exercises an irresistible attraction in a village and even in a city. It is a fête day in many communes when it is announced that the views obtained from Paris have arrived." So great is the interest excited, that in a number of communes subscriptions have readily been raised for the purchase of a lantern and views, and in several instances communes have clubbed together to secure the coveted apparatus. M. Petit advises a fixed remuneration for teachers engaged in the work, prizes for the students, and medals and academic palms for the most successful teachers. As to the sources of support, first and chief would be local contributions or appropriations; nevertheless, M. Petit recognizes clearly that the State must bear a part in the expense. For the first year he estimates that 250,000 francs (\$50,000) from the public treasury would suffice; in four or five years the subvention should be doubled and even quadrupled.

Such, in brief, are the measures proposed in the report which M. Petit has submitted.

While the future policy of the Government in respect to public courses for adults is not fully formulated, it is evident that the instruction provided will pertain to subjects beyond the elements, and that



every means will be employed to make it interesting and of practical utility to the students. Meanwhile private societies throughout the country are redoubling their efforts in the same direction.

Particularly significant is the action taken by the Havre society for instruction by object teaching (*"enseignement par l'aspect"*). This society celebrated its fifteenth anniversary in May last by calling a congress of all the societies for promoting popular education, to meet at Havre in the following August for the consideration of this very subject.<sup>1</sup>

Above four hundred delegates responded to the call, and the assembly derived prestige from the presence of President Faure. M. Poincaré, minister of public instruction, M. Ferdinand Buisson, director of primary instruction, and M. Gréard, rector of the Academy of Paris, took active part in the proceedings.

The general question was resolved into four topics, each assigned to a distinct section of the congress: (1) Courses for adults; (2) popular lectures; (3) instruction by objects; (4) sources of support and patronage; but, as observed by M. Compayré, beneath these four different forms "was one and the same question:" "How can we continue and complete the work of instruction and education commenced by the primary school?" The discussions and the resolutions adopted by the congress followed substantially the lines of M. Petit's report. The purposes of the adult courses were defined as follows: (1) Moral and civic education; (2) general instruction; (3) technical training. The importance of public libraries and the means of utilizing them for the benefit of the people were emphasized. The need of public funds for the work was recognized, but it was urged that private societies must be the main dependence.

This congress is but one feature of what has become an active campaign in behalf of a work similar in its spirit and purposes to that carried on in this country by Chautauqua circles and university extension. The press of France is largely enlisted in the matter. The *Revue Bleue* secured letters on the subject from some of the most prominent authors and leaders of public movements,<sup>2</sup> among these M. René Goblet and M. Léon Bourgeois, former minister of public instruction; Max Leclerc, the well-known essayist; M. Wagner, author of *"La Jeunesse;"* Henri Marion, philosopher and historian. The editor, M. Henry Béranger, prefaces the series by a historical survey which dwells particularly upon the initiative already taken by private societies in this matter.

What the Government has not as yet been able to do [he says] private societies have undertaken. When the *"Ligue de l'Enseignement,"* established at the end of the second Empire by Jean Macé, had realized its first ideal in establishing a law making instruction secular, obligatory, and gratuitous, its mission was not ended.

<sup>1</sup> See Proceedings of the Educational Congress of Havre, pp. 303-305.

<sup>2</sup> See *Revue Bleue*, August 24, 31, September 7, 1895.



The society considered that after the child there is the youth, and from that moment turned its efforts toward the reorganization of the courses for adults. This powerful league, distributed throughout France in numerous independent sections, introduced the magic lantern, which popularized the great events of history, the grand scenery of nature, and the attractive mysteries of the science of life. This particular expedient (*enseignement par l'aspect*), of which the Society of Havre affords an excellent illustration, has been one of the most profitable pedagogical outcomes of the movement.

About the same time certain powerful societies were organized in Paris to spread knowledge among the people. The Association Polytechnique, afterwards the Association Philotechnique, organized practical evening courses in letters, science, and arts. These two associations, to-day very flourishing, have rendered, and still render, the greatest service to the Parisian people. Two other important societies, formed among boys scarcely out of the high schools—the Union de la Jeunesse Française and the Union de la Jeunesse Républicaine—organized series of weekly conferences on literary, scientific, and moral subjects, and have thus contributed to the diffusion of intellectual life among the people.

The Parisian youth, therefore, have been abundantly furnished with all facilities for instruction, if not for education. It has not been the same with adults in the country. Not only has no institution been founded for them, but the school laws remain a fiction in many communes. The political divisions in every village, the frequent struggle between the schoolmaster and the priest, have prevented collective effort. To this neglect of youth must be attributed the increase of alcoholism and the manifestation of an ignorant and vicious spirit.

In 1891 an energetic young man, M. Guérin-Catelain, founded the Société Nationale des Conférences Populaires, embodying in this ideas that Lanthenas, Lakanal, and Condorcet had successfully carried in the conventions of May, 1792, and of July, 1793. He proposed, with his volunteer collaborators, to spread gratuitously in all France civic and humane instruction by means of printed lectures or lessons. This system was very ingenious. A scheme for a moral, scientific, or literary lecture or conference, drawn up by a competent person, was published, at the expense of the society, by thousands of copies. A copy put in the hands of the schoolmaster serves him as the model of a lecture and the basis of remarks before an audience composed of the working or rustic people. The society has had great success. It comprises to-day more than 3,000 directors of conferences and reported 6,000 conferences or lectures on the physical sciences applicable to agriculture, history, and hygiene in the single winter of 1893-94. Fifty texts, written by MM. M. de Nansouty, J. Siegfried, Félix Hément, E. Legouvé, A. Theuriet, George Ville, J. Steeg, etc., have been read thousands of times in thousands of cities. This work, an entirely private initiative, is a fine example of social effort, and shows what seeds one single effort can sow in a country like ours.

Some time after, in April, 1894, the bureau of the "Ligue de l'Enseignement" called together at Paris a committee to organize and collect opinions on the question of the instruction of adults. The call of the committee was not in vain. In August, 1894, the league held at Nantes an important congress, composed of publicists and professors. They outlined a plan for the reorganization of the courses for adults. M. Ferdinand Buisson, in the name of the minister of public instruction, and M. Léon Bourgeois, in the name of the "Ligue de l'Enseignement," delivered two remarkable discourses on the gravity of the problem and the imperative obligation of the State and the society to secure the cooperation of the people. In December, 1894, the superior council of public instruction prepared and adopted a project of law for organizing the courses for adults in accordance with new demands. The legislature alone has shown indifference in the matter, inscribing in the budget of 1895 the mere pittance of 20,000 francs for adults, in comparison with 120,000,000 francs that they continue to spend for the primary schools. But the idea has advanced. The publicists authorized MM. Félix Petit, Max Leclerc, Beurdeley, etc.,

to point out the defects in our system and explain the reforms accomplished abroad. From the Government also M. Edouard Petit, who, by his spirited writing, as well as his eloquent words, has made a veritable crusade in favor of the education of adults, received three months since a commission to undertake an exhaustive inquiry into the subject and to gather everywhere the views of the teachers and the people. The result of this inquiry has been drawn up in a report, which is now in the hands of the minister, and will be without doubt the beginning of a grand administrative reform.

The following account of the purposes and proceedings of the Havre congress, by Mr. H. R. Bigelow, United States consul, received as this matter goes to press, fittingly concludes the review of this subject:

SUMMARY OF PROCEEDINGS OF THE EDUCATIONAL CONGRESS,  
HAVRE, 1895.

By H. R. BIGELOW, *United States consul.*

FREE CONGRESS OF THE SOCIETIES FOR POPULAR EDUCATION AND INSTRUCTION, HELD AT HAVRE, AUGUST 30 AND 31 AND SEPTEMBER 1, 1895.

M. Poincaré, minister of public instruction, public worship, and the fine arts, honorary president, in the chair.

On the 28th of March, 1882, a law was passed establishing gratuitous obligatory education over the whole of France for all children between the ages of 6 and 13.

Notwithstanding this law, and notwithstanding the supervision of the special committees of each municipality, it has been proved by statistics that in 1893, out of about 300,000 conscripts of the year, 28,000 were utterly devoid of instruction.

The large towns, indeed, helped by the philanthropic societies, continue to provide their inhabitants with several gratuitous classes for adults, but the case is different in the rural communes, where attendance at the elementary school has caused the disappearance of three-fourths of these classes, formerly attended by the illiterate, although there are still 2,000 free societies for popular education in our country.

[TRANSLATOR'S NOTE.—The word "cours," so constantly employed in this report, answers to several English meanings, such as class, lecture, lesson, etc. The word "class" has been taken as the most general. "Patronage," also, comprises protection societies, friendly societies, aid, help, etc., societies. The word "patronage" has been retained as covering them all.]

Public opinion was moved by such a state of affairs. In 1884 M. Jaoulet, an inspector-general of elementary education, drew attention to the enormous loss among young people of what they had acquired at the obligatory schools. The pedagogic press and some eminent professors of the university took up the question. A society of public instruction—the "Ligue de l'Enseignement"—affirmed in 1894, at the congress of Nantes, that if the elementary school gives the child the minimum of elementary notions absolutely necessary for every civilized man, it will still be indispensable to give him more extensive information, adapted as far as possible to his profession. And finally, in last January, the expediency of organizing adult classes was brought before Parliament and discussed there.

In France the province of the State is extensive. The public-instruction budget exceeds 160,000,000 francs. From this sum the ministry can not deduct more than 100,000 francs for a reform that would require the help of the 100,000 school-teachers. With such slender resources, how could they be remunerated, even were the communes to be taxed for it?

This state of affairs induced the Government to set on foot an inquiry as to the creation of classes, lectures, popular libraries, societies of patronage for those leaving school, and as to the most rapid and economical means of attaining its object.

It was at this point that the "Havre Society for Instruction by the Aspect" (founded in 1881 to adapt a rational system of luminous projections to popular lectures) took the initiative of inviting the representatives of the French societies of instruction and education, the directors of libraries, the editors of pedagogic newspapers, to meet in a body at Havre, bringing their ideas and their experience to aid in the solution of this problem. At the same time the society asked the minister of public instruction to take the chair at this congress, not so much to direct it as to be himself guided by the competence and the free discussions of the delegates.

A considerable number of communications relating to the questions to be discussed were sent beforehand to the reporters charged with their methodical classification, and each adherent received the regulations, distributing the work among four sections. Each section, having chosen its president and secretary, was to deliberate apart, after which the resolutions were to be voted by the majority in full assembly.

#### PROGRAMME.

(1) *Classes for adults*.—Organization; educational code; methods and processes; special classes for girls.

(2) *Popular lectures*.—Industrial centers; rural centers; different systems of organization; subjects, choice of lecturers.

(3) *Teaching by aspect (objects)*.—Luminous projections, various modes of application; apparatus; photographic views on glass; choice and classing; circulating collections.

(4) *School societies of patronage for boys and girls*.—Games; lectures; savings; foresight; reciprocity.

On the 30th of August, in the presence of 400 members of this congress, the minister of public instruction, who was accompanied by M. Gréard, vice-rector of the Academy of Paris; Captain de Lamothe, representing the President of the Republic; M. Buisson, director of elementary education, and many prefects and members of Parliament, opened the meeting with a remarkable speech, dwelling upon the desire of the Government to be enlightened by the free discussion of the members summoned to express their views in a kind of national consultation.

The day was devoted to the special and simultaneous work of each section; the motions adopted were printed during the night and given to each member at the opening of the next day's meeting.

On the 31st of August, in full assembly, all the groups agreed in rejecting every programme or official interference in the application of its motions.

One of the most important discussions turned on a proposal to institute examinations to be passed by the conscript on his entering the regiment. The reporter urged the necessity of employing every means to attract pupils to the classes for adults, which are in danger of being but little attended if left optional.

Among these means would be the prospect of having to pass an examination, and having the marks put down in the military certificate book. The opponents of the proposal feared to create a certain inequality among the soldiers, and observed that there are regimental schools everywhere.

The motion was rejected.

#### PRINCIPAL RESOLUTIONS VOTED.

*First section*.—To encourage the formation of adult classes in localities where the town council is unfavorable.

To make the necessary steps easier for the schoolmaster or mistress by simply requiring them to advise the competent authorities of their intention.

To obtain the help of the Government in the foundation of free societies for education by the simplification of the legal formalities.

State grants to the societies for popular education that aid in the formation of similar societies in the departments by sending them delegates, lecturers, etc.



Entire freedom in the selection of programmes, according to local needs, left to the directors of classes.

Threefold object of the classes: (1) Moral education. (2) General instruction. (3) Professional education.

Forms of the classes: (1) Preparatory. (2) Finishing. (3) Designed for soldiers. (4) Designed for apprentices. (5) Technical and professional (living languages). (6) Superior.

The organization of the classes left to the free societies. State grants by results.

*Second section.*—Generalization of popular lectures. Members of the university encouraged by the university authorities to give lectures and to cooperate with the free societies.

*Third section.*—As much as possible to employ luminous projections to bring educational and professional knowledge within reach of every mind. To make an appeal to authors to draw up a collection of conversations to be sent to every commune in France, with a list of the views to be projected. To encourage the execution of views for projection, so as to facilitate the detailed study of history, geography, and natural history, should a collection of objects be wanting. Creation of artistic, scientific, industrial, and commercial museums.

*Fourth section.*—Object of societies of patronage: Morally, intellectually, and physically to watch over and protect children and young people. To appeal to the school funds and to the various institutions able to help in the development of societies of patronage. To find situations for the young people and to watch over them. To develop a spirit of foresight and reciprocity.

On the 1st of September, at the closing ceremony, the minister of public instruction made another speech. He did justice to the spirit of solidarity animating the members of the congress (as well the State functionaries representing private societies or committees, as the independent delegates) in the task they had undertaken individually with such genuine good will.

The part of the public powers, added he, is carefully to study all enlightened manifestations; to show their solicitude for the individual action of associations and of private persons; to make grants to poor communes, and, by everywhere exciting every energy, to complete the work of national education without increasing the burden on taxpayers.

#### MOVEMENT FOR THE ADMISSION OF AMERICAN STUDENTS TO THE UNIVERSITIES OF FRANCE.

The movement for admitting American students as candidates for degrees at French universities is exciting great interest in both countries. At the international congress on superior and secondary instruction, held in connection with the Paris Exposition of 1889, the matter was discussed under the general subject of the international equivalence of degrees. Eminent leaders of modern France urged the importance of a policy which should attract foreign students to the country by the prospect of merited honors. This course was urged from motives of patriotism as well as those of scholarly freedom. M. Lavissee voiced the prevailing sentiment when he said:

Happy are the people who know how to attract to themselves the youth of other nations. \* \* \* They are making friends for the future. No nation has greater need of such friends than France, none is more capable of securing them. Let us strive to attract young foreigners; let us call them to our midst and receive them cordially. They will see with their own eyes how this country, so often calumniated,



lives, thinks, and works. They will readily discover that it does not live and think and work for self alone. We shall serve France in thus making her known, for it is impossible to know without loving her.

Utterances like these were intermingled with practical suggestions for accomplishing the desired purpose. The most important of these was the proposal to encourage students to pass two or three semesters at one of the universities by establishing standards of equivalence in accordance with which degrees secured in foreign establishments would secure recognition in France. The necessity was recognized and the proposal supported, but there, apparently, the matter would have ended but for the efforts of an American enthusiast, Professor Furber, of Chicago. This gentleman has been anxious to see the French faculties open to American students on like liberal terms with those of Germany. In May last (1895) Professor Furber presented to the French minister of public instruction the following memorial on the subject:

CONCERNING THE ATTENDANCE OF AMERICANS AT THE UNIVERSITIES OF FRANCE.

[Memorial presented to the ministry of public instruction.]

With the advance of education in the United States the number of Americans attending European institutions of learning has increased. This migratory tendency on the part of those best prepared for the assimilation of knowledge and its dissemination in their native land has brought the nation closely into touch with the intellectual life of such countries as its students have been permitted to frequent. There is a growing desire to profit by the thought of other lands, and to overcome the crudities of a new civilization by a study of the old.

Eminent in every branch of learning, in many unsurpassed, and offering exactly that refinement of culture of which the transatlantic world is most in need, it might be supposed that France would draw to her shores no small contingent of America's academic pilgrims. Unfortunately, this expectation is not sustained by fact. At the Sorbonne there are hardly thirty Americans enrolled, as compared with some two hundred at present in attendance at the University of Berlin; while comparing the smaller institutions of France and Germany the disparity is even greater.

To what is this to be ascribed? Unless it be assumed that France is intellectually inferior to Germany—an assumption that can hardly be maintained—the only possible grounds for this phenomenon would seem to be, either that the Americans are unaware of the merits of French scholarship, or that some obstacle deprives them of free access to the schools of France. The former explanation is admissible only as a corollary to the latter. The real reason for the scarcity of American students in France and the successful rivalry of Germany in this particular may be found, perhaps, in the regulations which affect the foreign student in the universities of these respective countries.

In Germany an American is allowed to matriculate and qualify for a degree on the basis of a certificate of graduation from some reputable college of the United States. In certain instances, though with questionable propriety, even this condition is dispensed with. Throughout his course he is at liberty, moreover, to elect the studies he may desire to pursue. The two functions of the university, that of providing facilities for education, and that of certifying to intellectual attainment by the granting of diplomas, are kept rigidly distinct; and the student is free from examination, excepting when he chooses to apply for a degree. Prior to this juncture there is no effort made to test his progress—no disposition to question the nature or method of his work. Credentials certifying to the proficiency of his early schooling, a certain minimum of time spent at the universities of Germany, and a severe test

of his abilities at the termination of his course are, in short, the only important formalities to which a candidate for academic honors is required to submit.

In France, on the contrary, the student is throughout his university career subjected to regulations which practically exclude the greater number of Americans. There is no established equivalent for the diploma of the French lycée with which to seek admission into certain faculties; the course of study is to a large extent prescribed; compulsory examinations are held at frequent intervals, and a surveillance is thus exercised over the study of the student that deprives him in no small degree of the character of a free investigator.

It is obvious that, for the type of Americans found in Germany, it would hardly be profitable to submit to the strict régime imposed by France. The students from the United States are, with rare exceptions, men who have passed beyond the rudimentary grades of education, and have reached the stage of specialists. They are of intellectual maturity, graduates from native institutions, and are in quest not of discipline but knowledge. To such as these the privilege of independent research is indispensable, and they seek Germany instead of France. To be sure, it is possible for them to be inscribed as special students, and to secure as such the many educational advantages that the latter country courteously offers; but this does not lead to a degree, a consideration which, though of trivial importance as compared with other fruits of study, is still sufficient to create a current toward the seats of learning where a diploma can be incidentally secured. When it is remembered that many of the Americans in Europe intend in time to apply for professorships at home, it will be seen that this patent of successful effort while abroad is something more to them than a mere ornament.

The course of action necessary on the part of France in order to secure the patronage of the Americans may be suggested by what already has been said. It is the formalities alone that cause embarrassment. The American student does not desire that any essential requirement should be suspended. He does not request that the grade of scholarship necessary either to matriculation or to graduation be lowered in his favor. He would only ask that the peculiarity of his purpose and position be taken into due account; and that he be permitted to fulfill through some equivalent the requirements which in the nature of his case are otherwise next to prohibitive. The only really burdensome regulation is that relating to compulsory examinations, which, when frequent, not only tie the student more closely to set lines of study than is advantageous for the American but, on account of the strangeness of the language, during the early portion of his course are doubly arduous. An arrangement similar in principle to that which the French faculties of medicine have already adopted, whereby a foreigner, under certain circumstances, may take all his tests en bloc, would relieve him of every obstacle in this direction. This, and possibly a designation of the American colleges whose degrees would be accepted as an equivalent for the diploma of the French lycée, are the principal concessions the American student would desire. If it be thought that, other things being equal, he would thus be given an undue advantage over the native students in securing academic distinctions, his examinations might be so increased in their severity as to remove all possibility of any such unjust discrimination. The Americans would discover nothing inimical to their interests in any degree of proficiency which the French universities might consider it proper to demand of them; nor would they regard as inordinate a regulation insisting upon a somewhat lengthy term of residence in France. In this respect they would be satisfied if only they were permitted to utilize their period of study as they deem most profitable, and to prepare themselves for a final test of their abilities in the manner they find most convenient.

The educational system of the French is based upon a theory—a theory which implies continual surveillance over the progress of the student; and in this it differs intentionally from that of Germany. That the methods which obtain in France have their own distinctive merits is not to be disputed. There is no desire to criti-

cise the organization of the French universities or to bring them into unfavorable comparison with those of other countries. It is safe to assume that the educational institutions of the nation are adjusted, as they should be, to its own peculiar needs, as are those of Germany to hers. The purpose here is simply to emphasize the fact that the American student is not offered by the French the same facilities he enjoys in certain other quarters; it being of course a question whether or not the interests of France are sufficiently at stake to warrant her in taking action to amend the present condition of affairs.

That an American clientèle such as the French schools have it in their power to command is able to commend itself is evidenced by the distinguished consideration the students from the United States have won in Germany, while the degree in which America appreciates the hospitality accorded her is shown by the effort of her universities to encourage foreign travel and research. Her faculties contain an increasing per centum of scholars whose education has been received to some extent abroad; and in many institutions of the United States scholarships exist whose purpose it is to give the students fortunate enough to earn them the benefit of European study.

Combining, as our Western civilization does, two great elements, the Latin and Germanic, it is for the interest of America to study both, and in the opinion of many able thinkers the time has come when the former element, and this as best exemplified in France, is the one to which her students should especially address themselves. It is, therefore, not to an indifferent public that France is invited to extend her courtesies.

On the other hand, there are considerations besides those of simple magnanimity that may be of moment in determining the course the French universities may choose to take. The young savants who visit Germany in growing numbers are already influencing American opinion. Berlin, with which Paris easily might vie for honors, is beginning to be regarded as the scientific Mecca of the world; and despite the favor in which French culture stands with many, there are in certain circles in America indications of little less than a German cult—an enthusiasm for German thought and views that unconsciously unites with the high esteem in which the learning of Germany is justly held a partisan interest in her political aims and aspirations. It is from causes such as these that national friendships and animosities frequently arise. The men who flock to the universities of Europe are the ones who will mold the ideas of the rising generation; and the sympathies of the nation will surely follow in the footsteps of her students. It is accordingly not the interests of a few individuals alone that are involved. The intellectual life of the whole United States, together with her sympathies for France, can not fail to be affected in some measure by the attitude the French assume in regard to the question here submitted.

A meeting was subsequently called at the Sorbonne (June 26) to consider the subject. M. Gréard, rector of the Academy of Paris, presided and leading professors took part in the proceedings.

The interest which these measures excited was greatly stimulated by an article from M. Michael Bréal, which appeared in the *Journal des Débats* of June 7. In this article, which was republished in a pamphlet issued by the university committee, Professor Bréal contrasts policy of Germany and France in respect to foreign students.

He says:

In Germany nothing is easier than to be accepted and treated as a student. Provided you bring a certificate from some good institution for secondary education, that suffices; you are enrolled and take the academic oath. The rector bids you welcome. Thenceforth you are admitted to the courses and find yourself on exactly the same



footing as the native student; you are a regular pupil of the Albertina or of the Georgia Augusta. You frequent the laboratories and, if an able man, take part in the exercises of the seminar—always paying, be it said, the requisite number of gold Fredericks each half year. No examinations for passing to a higher grade, no test of progress casts a shade over the tranquillity of these happy years. You have time to become familiar with the language of the country and with the spirit of the university, to form friendships and acquaintances, and to steep yourself in the atmosphere of your surroundings.

But this is not all. The student who has spent two or three years in a foreign country naturally wishes to bear away some reward for his effort, some authentic proof that his time has been worthily employed. The German doctorate is admirably adapted to this purpose. You write a thesis of moderate length and average difficulty on some subject of your choice. After a series of interrogations in which the good nature of the judges tempers, if need be, their just severity, you are proclaimed doctor; and you take back to your own country a diploma graced by names venerated and renowned throughout the scientific world. It is true that this diploma gives no assurance of obtaining a position. It confers no prerogatives either in Germany or elsewhere; but as this is understood beforehand, and as the conditions are the same for Germans also, there is no cause for surprise or for complaint.

It is to this adaptable and supple organization that Mr. Harry Furber traces the preference distinctly accorded to the universities of our neighbors. We are far from believing it to be the only cause; but since it has been pointed out by a witness so well placed for forming an opinion, we can not help thinking that it should be regarded with attention. We have to ask ourselves whether, by certain requirements not wholly reasonable, we are not turning from us a clientèle which would ask nothing better than to take the road to France; but which, if we persist in our present course, will push forward more and more in the direction toward which it is now tending.

There are difficulties which result from our educational system. We know these difficulties are great, but they ought not to be insurmountable. There has been created, within the last few years, a *certificat d'études* for foreigners; this is something; but we are still far from the advantages, the seductive advances of the German organization, especially if we take into account the very sensitive amour propre of youth. What Mr. Harry Furber asks is, that foreigners should have the right to undergo the same examinations as French students, but that they should undergo them all together, or en bloc, at the end of their studies, provided they prove that they have spent a sufficient time at our universities. It is for our authorities to see whether this desire exceeds the amount of elasticity possessed by our regulations. If we are not mistaken, something of this kind has already been done for medicine.

Professor Bréal also notes that present conditions in France are more favorable to the new project than those that existed in the last decade. He says:

Twelve or fifteen years ago, with our system of centralization, it would have given rise to some embarrassment to bring together upon the same spot, Paris, any large number of foreigners whose presence would have resulted in overcrowding, with all the annoyances and inconveniences that follow in its train. But this danger is no longer to be feared, since we could say to the friends from without: "Our universities are open to you; we invite you to frequent them and to sit by the side of our own children. But we counsel you in your own interest not to crowd yourselves into a city already overflowing, on to benches already overfilled. Would you know French life intimately and in its purity? Then choose one of our provincial universities; continue in the provinces the investigations Mr. Harry Furber has so happily



begun in Paris. Nowhere will you find scientific institutions that are larger or more convenient than those of Lyons, nowhere equipments more extensive than those at Lille (they have just been inaugurated). In the provinces you will run no risk of being isolated. The companionships formed so easily in youth, and among us more easily than elsewhere, will not be long in becoming frank and cordial. Would you revel in a rare climate, a rich and unfroward nature? Go to Dijon, to Toulouse, to Bordeaux, or to Montpellier. For my own part, were I to begin my life again, I would not be a student elsewhere than at Grenoble, within sight of the Alps, beside the swift waters of the Isère. And you will find everywhere the French—French language, the French literature, French ties. Have no fear that you will be imprisoned in a corner; there are associations that will undertake to transport you from fête to fête, from south to north, from east to west. Keep Paris, if you like, for the end, when, having completed your studies, you want to become acquainted with the furnace in which all these diversities are united and smelted down.”

As a result of these initiatory efforts a committee of university men and officials was formed under the name of the committee Franco-American,<sup>1</sup> to promote the purposes expressed in Professor Furber's Memorial. An American committee, advisory to the first, has also been formed in the United States, under the presidency of Prof. Simon Newcomb.

At a meeting of the latter committee held at the Columbian University, Washington, November 13, 1895, the following resolutions were formulated:

1. This committee has heard with great pleasure of the movement of eminent educators of France, having for its object the admittance of American students as students and candidates for degrees at the French universities. This committee heartily reciprocates the desire for yet closer bonds of intellectual sympathy between France

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<sup>1</sup> The members are as follows: Berthelot, of the Institute; Bertillon, director of the bureau of municipal statistics; Bonet-Maury, professor of the faculty of Protestant theology; Boutmy, of the Institute, director of the *École des Sciences Politiques*; Michel Bréal, of the Institute, professor of the *Collège de France*; Bufnoir, professor of the faculty of law; Xavier Charmes, of the Institute, director in the ministry of public instruction; Darbonx, of the Institute, dean of the faculty of sciences; Paul Dubois, of the Institute, director of the *École des Beaux-Arts*; his excellency James B. Eustis, ambassador of the United States; Friedel, of the Institute, professor of the faculty of sciences; Giry, professor of the *École des Chartes*; Gréard, of the *Académie Française*, rector of the *Académie de Paris*; Lannelongue, professor of the *Académie of Medicine*; Lavissee, of the *Académie Française*; Levasseur, of the Institute, professor of the *Collège de France*; Liard, director of higher instruction; Maspéro, of the Institute, professor of the *Collège de France*; Paul Melon, general secretary of the committee of patronage for foreign students; Paul Meyer, of the Institute, director of the *Écoles des Chartes*; Milne-Edwards, of the Institute, director of the museum; Gabriel Monod, professor of the *École des Hautes Études*; Moissan, of the Institute, professor at the school of pharmacy; Gaston Paris, of the *Académie Française*, administrator of the *Collège de France*; Pasteur, of the *Académie Française*; Perier, of the Institute, professor at the museum; Perrot, of the Institute, director of the *École Normale*; Planchon, director of the school of pharmacy; Sabatier, professor of the faculty of Protestant theology; Colmet de Santerre, dean of the faculty of law; Schefer, of the Institute, director of the *Écoles des Langues Orientales Vivantes*; Jules Simon, of the *Académie Française*; Albert Sorel, of the *Académie Française*; Vicomte de Vogué, of the *Académie Française*.

and the United States, which is implied by the organization of the Franco-American Committee of Paris, and by the interest with which it has proceeded to carry out its object. It would welcome the opening of the doors of the French universities to American students, as widely as those of Germany and the United States are now open to those of other countries, and believes that the friendly feeling implied by such action on the part of the French nation would be heartily appreciated by the American people.

2. As the decision where each American student shall pursue advanced studies, whether he shall avail himself of the rapidly increasing facilities for such instruction in his own country, or shall choose those afforded by the universities of France or Germany, rests entirely with the student himself; as, also, the reasons why American students flock to Germany rather than to France are too numerous and too delicate to be concisely formulated; this committee is unable to state authoritatively whether any suggested measure would or would not result in a large attendance of American students on French instruction. It believes, however, that the following two measures are those which would best promote the proposed object and would tend to encourage American students to avail themselves of the precious advantages offered by the well-organized system of university instruction now enjoyed by France:

(a) The acceptance by the French universities, as candidates for the doctor's degree, of Americans holding the bachelor's degree from any institution of learning of good standing in the United States; this degree being accepted as equivalent of that of the French lycées.

(b) Owing to the disadvantage under which the student would labor, especially in the early part of his course, on account of his lack of familiarity with the French language, it is suggested that instead of the frequent rigorous examinations required by the French system, informal ones should be substituted, the successful passage of which should not be obligatory.

The object of the examination would be the information both of the professor and the student as to the progress the latter was making, and the indication of measures necessary to make good any deficiencies in that progress. The committee believes that this policy would be better than the entire abandonment of current examinations, and would not involve any curtailment of the final examinations for the degree.

3. The committee does not believe that the institution of any system of special degrees or special conditions for foreign students would tend to attract Americans. The latter, if candidates for a degree at all, would expect and desire to fulfill all requirements exacted by the French regulations of native students, and, having fulfilled these requirements, would expect the same degrees.

4. After due consideration, the committee finds itself unable to supply a list of approved American institutions whose degrees should be accepted in France. It does not believe that any untoward event would follow from the acceptance of the baccalaureate of any American institution. Only the best students would under any circumstances seek the advantage of completing their education in France, and these might sometimes come from institutions little known outside their own neighborhood.

5. Without being authorized to speak for anyone but themselves, the committee feels sure that French students desirous of pursuing their studies in the United States, would be cordially welcome at any American institution of learning, and afforded all the opportunities and advantages enjoyed by native students.

As this matter goes to press, information is received as to the first practical outcome of the efforts of the Franco-American Committee. Mr. Furber, writing from Paris, January 21, 1896, says—

Friday last the conseil supérieure voted a decree reforming the "licence" (i. e. degree of licencié), in such a manner as will, I think, permit the French faculties of science to be as liberal in their regulations as are the German universities.

The new features introduced by this decree are: (1) Wider choice in the selection

of studies; (2) liberty to migrate from one university to another, and (3) the privilege of taking examinations successively or "en bloc," just as the student wishes. The student is expected to qualify for his licence in one of three groups of studies. Each faculty will determine its own groups. In Paris they will be as follows:

I. Differential and integral calculus, pure mechanics, and one other mathematical branch, as for instance, astronomy.

II. General physics, general chemistry, and one other branch of science, either mathematical, physical, or natural.

III. Zoology, botany, and geology.

Our students will be admitted on the basis of their American diplomas. If an able man, and thoroughly prepared, a student will be able to discharge the work required for his "licence" in one year, by carrying his three subjects simultaneously. He may, however, if he wishes, take them in successive years, traveling from one faculty to another, and following at the same time other courses.

After having pursued a study for a year the student has the privilege of applying for examination; and if he stands his test, receives a *certificat d'étude*. Whenever he secures three such certificates covering studies in one group, he receives the diploma of *licencié ès sciences*, and the doctorate is then to be obtained upon the presentation of a satisfactory thesis.

As you will observe, this is practically the German system, modified, so that the student may not only take his examinations whenever he is ready, but also receive independent credits for every portion of his work. The regulations I describe go into effect at the opening of the coming academic year. \* \* \*

The faculty of medicine already offers all the facilities I think we could desire, and the faculty of theology is about to make us valuable concessions. There will remain only letters and law to be arranged. And something may very possibly be done in these directions before many months elapse.

## CHAPTER IX.

### PUBLIC EDUCATION IN BELGIUM, 1892-93.<sup>1</sup>

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*Belgium, constitutional monarchy.*—Area, 11,373 square miles; population (census of 1890), 6,069,321.

For previous article see *System of Public Education in Belgium*, Report for 1892-93, Vol. 1, pp. 157-201.

TOPICAL OUTLINE.—*Brief view of the system of education, with statistical summaries, current and comparative.*—*New school law of September 15, 1895.*

The report of the Commissioner for 1892-93<sup>2</sup> presented a detailed exposition of the educational system of Belgium, with statistics showing its progress. In brief, it may be said that the system is characterized by the union of central and local agencies, the State, the provinces, and the communes. There is the form of centralization with a high degree of local independence.

State appropriations are made for all grades of instruction, covering in 1892-93 about 38 per cent of the total cost of elementary schools, 65 per cent of the cost of public secondary, and substantially the whole cost of the State universities.

The curricula of public secondary schools and of the State universities and the appointment of professors in the same emanate from the central authority.

The Belgian State universities, like the French faculties, are not only teaching bodies, but constitute part of the machinery for the administration of superior instruction.

The State maintains a measure of supervision over both secondary and elementary schools through the agency of inspectors, but the commune, the smallest civil district, is the unit of and the controlling power in the elementary school system. In every commune there must be at least one elementary school. This may be a communal school, supported entirely by public funds; an adopted school, a subsidized private school, or a private school fulfilling the conditions of adoption. The communal council appoints the teacher and arranges the programme for communal schools, subject only to the requirement of the school law as to the obligatory branches.

The following statistical summary (p. 314) shows the status of the several classes of institutions at the latest date of report.

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<sup>1</sup> Prepared by Miss Anna Tolman Smith.

<sup>2</sup> Vol. I, pp. 157-201.



| Classes of institutions.                                    | Pupils or students. |            |          |            |         |              | Teachers or professors. |         |         |        |         |         | Current expenditure. |               |
|---|---------------------|------------|----------|------------|---------|--------------|-------------------------|---------|---------|--------|---------|---------|----------------------|---------------|
|   | 1890.               |            |          | 1893.      |         |              | 1890.                   |         |         | 1893.  |         |         |                      |               |
|   | Male.               | Female.    | Total.   | Male.      | Female. | Total.       | Male.                   | Female. | Total.  | Male.  | Female. | Total.  | 1890.                | 1893.         |
| Infant schools (écoles gardiennes) (ages 3 to 6 years)..... |                     |            | 113, 172 |            |         | 133, 833     |                         |         |         |        |         |         | 1, 952               |               |
| Primary schools (ages 6 to 14 years):                       |                     |            |          |            |         |              |                         |         |         |        |         |         |                      |               |
| Public.....   | 203, 502            | 174, 144   | 440, 646 | (405, 921) |         | { 652, 204 } | 5, 438                  | 3, 153  | 8, 591  | 5, 097 | 3, 386  | 9, 083  |                      | \$5, 790, 880 |
| Subsidized private.....                                     | 68, 537             | 106, 858   | 175, 395 | (186, 283) |         |              | 1, 189                  | 2, 015  | 3, 204  | 1, 153 | 2, 234  | 3, 387  |                      |               |
| Total.....  | 335, 039            | 281, 002   | 616, 041 |            |         | 652, 204     | 6, 627                  | 5, 168  | 11, 795 | 6, 250 | 5, 620  | 12, 470 | 23, 870, 877         | 55, 790, 880  |
| Primary normal schools:                                     |                     |            |          |            |         |              |                         |         |         |        |         |         |                      |               |
| State schools and sections.....                             | 345                 | 366        | 711      | 321        | 318     | 639          |                         |         |         |        |         |         | 387, 036             |               |
| Private.....  | 720                 | 1, 085     | 1, 805   | 790        | 1, 217  | 2, 007       |                         |         |         |        |         |         |                      |               |
| Total.....  | 1, 065              | 1, 451     | 2, 516   | 1, 111     | 1, 535  | 2, 646       |                         |         |         |        |         |         |                      |               |
| Schools for adults:   |                     |            |          |            |         |              |                         |         |         |        |         |         |                      |               |
| Public.....   | 48, 362             | 13, 797    | 62, 159  | (32, 430)  |         | { 69, 471 }  | 2, 076                  | 622     | 2, 698  |        |         |         |                      |               |
| Subsidized private.....                                     | 3, 652              | 1, 864     | 5, 516   | (6, 041)   |         |              | 146                     | 42      | 188     |        |         |         |                      |               |
| Total.....  | 52, 014             | 15, 661    | 67, 675  |            |         | 69, 471      | 2, 222                  | 664     | 2, 886  |        |         |         | 195, 541             |               |
| Secondary schools:  |                     |            |          |            |         |              |                         |         |         |        |         |         |                      |               |
| Royal Athénées.....   | 5, 726              |            | 5, 726   | 5, 852     |         | 5, 852       |                         |         |         |        |         |         |                      |               |
| State and communal secondary.....                           | { (1, 223)          | { 6, 958 } | 22, 702  | 15, 655    | 6, 859  | 22, 514      |                         |         |         |        |         |         |                      |               |
| Total.....  | { 20, 247 }         | { 6, 958 } | 28, 428  | 21, 507    | 6, 859  | 28, 366      |                         |         |         |        |         |         | 21, 217, 679         | 907, 234      |
| Secondary normal schools.....                               | 113                 | 250        | 363      | 57         | 90      | 147          |                         |         |         |        |         |         |                      |               |
| Superior instruction:                                       |                     |            |          |            |         |              |                         |         |         |        |         |         |                      |               |
| State universities—   |                     |            |          |            |         |              |                         |         |         |        |         |         |                      |               |
| Ghent (Gand).....   |                     |            | 758      |            |         | 672          |                         |         |         |        |         |         | 117                  | 138, 456      |
| Liège.....  |                     |            | 1, 383   |            |         | 1, 260       |                         |         |         |        |         |         | 120                  | 155, 123      |
| Private universities—                                       |                     |            |          |            |         |              |                         |         |         |        |         |         |                      |               |
| Brussels.....   |                     |            | 1, 693   |            |         | 1, 309       |                         |         |         |        |         |         |                      |               |
| Louvain.....  |                     |            | 1, 809   |            |         | 1, 657       |                         |         |         |        |         |         |                      |               |
| Total.....  |                     |            | 5, 634   |            |         | 4, 898       |                         |         |         |        |         |         |                      |               |

*a* Not including costs of administration, which pertain to the entire elementary department and are borne by the State exclusively; amount, \$115,885, excluding also costs of new buildings, repairs, etc., \$527,000.

*b* Includes infant and primary normal schools.

*c* 7,231 preparatory.

*d* 4,566 preparatory.

*e* Includes repair of buildings and equipment.

*f* Also 44 officers of administration.

*g* Includes \$85,677 for new buildings.

*h* Also 68 officers of administration.

*i* Includes also \$71,302 for new buildings.

*j* From public funds, 1892.

*g* 138, 456

*h* 155, 123

*i* 375, 068

The comparative view presented herewith indicates the fluctuations in the elementary school system under the successive laws passed by the Liberals in 1879 and the reactionary law of 1884:

| Year.      | Enrollment.    |          |          |                              | Teachers, per cent of, clerical. | Income (per cent) from— |            |           |                    |                   | Subscriptions, bal-<br>ances, etc. |
|------------|----------------|----------|----------|------------------------------|----------------------------------|-------------------------|------------|-----------|--------------------|-------------------|------------------------------------|
|            | Com-<br>munal. | Adopted. | Total.   | Per cent of popu-<br>lation. |                                  | State.                  | Provinces. | Communes. | Tuition fees from— |                   |                                    |
|            |                |          |          |                              |                                  |                         |            |           | Parents.           | Charitable funds. |                                    |
| 1878 ..... | 527, 417       | 70, 796  | 598, 213 | 10. 8                        | 17. 2                            | 47                      | 2. 2       | 36. 6     | 8. 48              | 3. 35             | 2. 37                              |
| 1883 ..... | 345, 687       | 325      | 346, 012 | 5. 9                         | . 2                              | 50. 5                   | 2          | 35. 6     | 2. 53              | 2. 84             | 6. 48                              |
| 1890 ..... | 440, 646       | 175, 395 | 616, 041 | 10                           | 14. 8                            | 39                      | 6. 6       | 47        | 3. 47              | 2. 36             | 1. 57                              |
| 1893 ..... | 465, 921       | 186, 283 | 652, 204 | 10. 4                        | 16. 3                            | 38. 4                   | 5. 8       | 47. 1     | 4. 22              | 2. 66             | 1. 82                              |

To complete the view of public education in Belgium, statistics of public or State-aided institutions not included in the educational system are appended:

| Name.  | Year. | Enrollment. |         |         |
|--|-------|-------------|---------|---------|
|  |       | Male.       | Female. | Total.  |
| Institution for the deaf and dumb and the blind subsidized by the State..... | 1893  | 758         | 624     | 1, 382  |
| Royal Institute of Messines.....   | 1893  | .....       | 196     | 196     |
| Asylums for orphans and abandoned children.....                              | 1893  | 663         | 1, 361  | 2, 024  |
| Reform schools and State charity schools.....                                | 1893  | 2, 196      | 510     | 2, 706  |
| Prison schools.....  | 1893  | 1, 291      | 101     | 1, 392  |
| Royal Academy of Fine Arts at Antwerp.....                                   | 1893  | .....       | .....   | 1, 409  |
| Other academics and schools of drawing (80 in number).....                   | 1893  | .....       | .....   | 14, 744 |
| Royal conservatories of music.....   | 1893  | 333         | 450     | 783     |
| Other conservatories and schools of music (49 in number).....                | 1893  | 6, 534      | 4, 847  | 11, 381 |
| Veterinary school of Brussels.....   | 1893  | 64          | .....   | 64      |
| Agricultural and horticultural schools.....                                  | 1893  | 237         | .....   | 237     |
| Apprenticeship schools subsidized by the State.....                          | 1893  | 893         | 74      | 967     |
| Industrial schools.....  | 1893  | 14, 973     | 1, 529  | 16, 502 |
| Superior school of commerce at Antwerp.....                                  | 1892  | 228         | .....   | 228     |
| Provincial school of mines at Hainaut.....                                   | 1892  | 176         | .....   | 176     |

## SCHOOL LAW OF 1895.

Intense excitement was created in Belgium during the year by the new school law which was promulgated September 15. The principal change effected by the law relates to religious instruction. This is made a compulsory subject to be placed at the head of all primary school programmes, instruction in the same is confided to the clergy who must have free access to the schools, either to give or to supervise the religious lessons as they may decide. The requirement extends to normal schools also.

The law of 1884 made religion an optional subject, and since that date it has been introduced into nearly all the schools, only 153 out of a total of 5,778 having failed to include it in their programmes. The reaction against the secular system established by the Liberals in 1879 has now reached the extreme point. The new law is opposed by the

Liberals, and demonstrations were made against it in Brussels, Antwerp, and other cities, while its passage was pending.

Although the excitement has subsided since the measure became law, its opponents have not relaxed their efforts to create a public sentiment against the admission of clerical influences into the schools.

The principal features of the law, the obligation to maintain schools, the required course of instruction, the provision as to free tuition and the control of religious instruction by the clergy are here given in full. The clauses bracketed are identical with those of the law of 1884.<sup>1</sup>

[Every commune must have at least one communal school situated in an accessible place.]

[The commune may adopt one or more private schools. In this case the King, upon the advice of the "permanent committee," may exempt the commune from the obligation to maintain a communal school. This dispensation can not be accorded if 20 heads of families having children of school age demand the creation or the maintenance of a school for the instruction of their children and the "permanent committee" concurs in this demand.]

The adoption may be valid for ten years or more. It will cease at the expiration of this time in case of the death or retirement of the teacher in whose name the agreement was made. The agreement is always renewable when no limit is fixed to the agreement. The same can not be annulled during the current school year nor without a year's notice.

[In case of necessity two or more communes, upon authority from the King, may unite to found and maintain a school. (Art. 1.)]

[Communal primary schools are directed by the communes.]

[The number of the schools and of the teachers is determined by the communal council, according to the needs of the locality.] In every case the decision of the communal council to suppress a public (communal) school or one or more teachers' positions must be submitted to the consideration of the "permanent committee" and to the approbation of the King. The royal *arrêté* authorizing the suppression must be published in the *Moniteur*.

[The council also controls everything relating to the establishment and organization of infant schools (*écoles gardiennes*) and of the schools for adults. (Art. 2.)]

[The children of poor parents receive gratuitous instruction.] The communes must see that all those who have the right to free tuition and who do not attend uninspected private schools are provided with instruction either in a communal or adopted school.

The following are entitled to free tuition for their children: Those whose entire tax amounts to less than 10 francs (\$2) in the communes having less than 5,000 inhabitants; less than 15 francs (\$3) in communes having from 5,000 to 20,000 inhabitants; less than 30 francs (\$6) in the communes of more than 20,000.

Every year the communal council must prepare a list of the children who have a right to free tuition under the conditions specified. The council determines the rate per capita which shall be allowed under this head to teachers of communal and of adopted schools.

The list, as well as the rate of allowance, must be approved by the "permanent committee," with a right of appeal to the King.

The communes, as also the principals of schools adopted or which might be adopted, may accord gratuitous instruction to other children than those included in the cate-

<sup>1</sup> For the law of 1884, see Report of Commissioner for 1892-93, vol. 1, pp. 199-201.

<sup>2</sup> A provincial body consisting of the governor of the province and six members of the provincial council, chosen by that body.

gories specified above. The "permanent committee" in advice with the board of charities and of the communal council, and with the right of appeal to the King, must determine the part which the board of charities must bear in the expense for children who have a right to free tuition. The portion so assigned is included in the appropriation for the board and must be divided between the communal schools and the adopted schools, the private schools fulfilling the conditions of adoption in proportion to the number of children in regular attendance having the right to free tuition. (Art. 3.)

Primary instruction comprises as obligatory branches instruction in religion and morals, reading, writing, elements of arithmetic, the legal system of weights and measures, the elements of the French language, of the Flemish or the German, according to local requirements, geography, history of Belgium, elements of drawing, singing, and gymnastics. Moreover, it comprises needlework for girls, and for boys in the rural districts notions of agriculture.

Communes have the right to extend the programme as may be possible or desirable.

In the primary schools to which the law is applicable the ministers of the several denominations shall be asked to give the instruction in religion and morals, or to cause it to be given under their supervision, either by the teacher, if he consents to do so, or by a person approved by the communal council.

The first hour or the last half hour of the morning or of the afternoon session shall be given each day to this instruction. Children whose parents make the request in the following form may be exempt from the religious instruction: The undersigned, in pursuance of the right conferred upon him by article 4 of the law relating to primary instruction, requests that his child be exempt from attending the instruction in religion and morals. (Art. 4.)

The inspection of the instruction in religion and morals shall be exercised by persons delegated by the "chiefs of the confessions." The delegates discharge their duties according to conditions specified in a royal arrêtée.

The chiefs of the several confessions notify the minister of the interior and of public instruction of the appointment of their delegates, who, after sanctioning the same, transmits the necessary instructions to the provincial and communal officials, as well as to the inspectors of primary instruction.

Every year, in the month of October, each of the "chiefs of religion" addresses to the minister of the interior and of public instruction a detailed report upon the manner in which the instruction in religion and morals is given in the schools controlled by the law. (Art. 5.)

That the teacher is not relieved by this arrangement from the duty of caring for the morals of his pupils is indicated by the following, which was embodied in article 5 of the previous law:

Teachers must show an equal solicitude for the education and instruction of the children under their charge. They are to neglect no opportunity to inspire in their pupils the sentiments of duty, love of country, respect for national institutions, and attachment to constitutional liberty. They must abstain from any attack upon the religious beliefs of the families whose children are intrusted to them. (Art. 6.)

Outside of the articles cited, the only important modification in existing conditions pertains to the application of the State appropriations. These are to be divided between communal adopted and private schools upon the same conditions. The law provides, as heretofore, that the expenses shall be borne by the communes, the provinces, and the State. The commune must take the initiative in establishing the school—communal or adopted—providing the building and equipments, and in



order to secure an appropriation, either from the State or the province—

Must contribute a sum equal to the product of 4 centimes additional to the direct tax, and must execute the law respecting primary instruction in all particulars.

The provinces must contribute for school purposes an amount not less than the product of 2 centimes additional to the direct tax. The funds at the disposal of the commune for primary instruction can not be used for another purpose. (Art. 7.)

As to the state appropriations, it is expressly stated that, "beginning with 1896, a credit voted annually by the legislature for the ordinary service of primary instruction will be apportioned among the communal schools, the adopted schools, and the private schools not adopted, but fulfilling the legal conditions of adoption.<sup>1</sup> The rules of apportionment will be the same for the three classes of schools. (Art. 8.) It should be added that all subsidized schools must make provision for a certain number of free pupils.

The requirements for admission to the public-teaching service are the same as under the previous law—

The communal schoolmasters are chosen from among those Belgians, either by birth or naturalization, who have gained the diploma of an elementary teacher after being trained in a public normal school, or who have passed an examination after having attended lectures during at least two years, or who have gained a diploma for secondary teaching (*enseignement moyen*) of the second degree. They can also be selected from among those persons who have successfully passed the teachers' examination before a jury appointed by the Government. (Art. 9.)

The right of appointing and suspending teachers and of revoking their appointments rests with the communal council, although appeal to the "permanent deputation" (provincial committee), and finally to the King, is possible in each case. There is the same provision for dispensing with the services of public teachers as under the law of 1884. This is accomplished by placing them out of active service with a temporary arrangement for salary (*en disponibilité*).

In the matter of salary, the position of the communal teacher is slightly improved. As against a minimum annual salary of \$200 for assistant teachers and \$240 for principals under the previous law, the present law fixes the following classes and rates:

|  | Principals. |        | Assistants. |        |
|--|-------------|--------|-------------|--------|
|  | Men.        | Women. | Men.        | Women. |
| Fifth class, communes of 1,500 inhabitants or less.....      | \$240       | \$240  | \$200       | \$200  |
| Fourth class, communes of 1,501 to 10,000 inhabitants .....  | 280         | 260    | 220         | 220    |
| Third class, communes of 10,001 to 40,000 inhabitants.....   | 320         | 280    | 240         | 220    |
| Second class, communes of 40,001 to 100,000 inhabitants..... | 360         | 320    | 260         | 240    |
| First class, communes of more than 100,000 inhabitants ..... | 480         | 440    | 280         | 240    |

The teacher must also be provided with a residence or indemnity for the same ranging from \$40 to \$160. (Art. 13.)

<sup>1</sup>The chief conditions of adoption are that the school be conducted in a suitable building, that at least one-half of the teachers hold diplomas or have passed a Government examination, and that the school be opened to state inspection.

An increment of \$20 is allowed for every four years of good service until the total increment amounts to \$120.<sup>1</sup> (Art. 15.)

The provisions of the law as to the service of inspection are the same as under the previous law, excepting that it is expressly declared that State inspection does not extend to instruction in religion and morals. The provisions as to normal schools are also unchanged, excepting that with regard to instruction in religion and morals. In this matter, as already stated, they are subject to the same rule as the primary schools.

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<sup>1</sup> Teachers have the right to a pension upon the same terms as members of other branches of the civil service. They may demand the pension at 55 years of age or be retired with pension at 60. The amount of the pension is calculated for each year of actual service at the rate of one fifty-fifth of the average salary received for the last five years in the service.



# CHAPTER X.

## EDUCATION IN CENTRAL EUROPE.

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## I.—THE NEW EDUCATION IN GERMANY.

The recent movement among teachers in the United States toward the introduction of Herbart's principles and practices of education has found many advocates and adherents, which fact again proves that the liberty of speech and discussion enjoyed in this country is conducive to progressive action. There are at present more adherents of Herbart in the United States than in Germany. History repeats itself in this. Froebel's kindergartens are quite popular here, while in Germany they seem to make very little headway. It is interesting and instructive to note how one of the foremost Herbartians in Germany, Prof. W. Rein, in Jena, views the subject from a German standpoint. He published in the *Deutsche Revue* of September, 1895, an article on "The old and the new education," which is here rendered in English garb:

Man is the most interesting study of man, and should perhaps interest him exclusively. Everything else surrounding us is either an element in which we live or a tool which we apply. (Goethe.)

Goethe's words place us face to face with the problem of education, for if man is the most interesting study of man we must conclude that it is not the mature man but the growing man which above all claims our attention and interest. Whenever we meet a perfected personality, the question unconsciously arises, What has made it so; how has it grown to be what it is? Our interest is directed to the time of his development, to the contemplation of the influences that determined the formation of his character from outside, and to the germs which predestined his growth from within. The great problem arises, How much of the development of man may be ascribed to necessity and how much to freedom, how much to nature and how much to art, how much to heredity and how much to acquisition through education? If we further consider that society consists of individuals, the problem becomes more comprehensive and difficult, for it becomes necessary to investigate the connection of the influences which have operated between the older and the younger generation in the course of centuries; the question will have to be met as to how far the force of education has been effectual in this process. Think of this effect as we may, one thing is beyond doubt, namely, that education is neither the result of blind necessity nor of unlimited arbitrariness, and that it exercises a definite influence upon the development of moral energies which saturate a whole series of generations. Why else would statesmen, political party leaders, church dignitaries, and laymen of all kinds try to direct the educational principles and monopolize the educational influence of the people?

Indeed, the mature has often tried to prescribe the course of the growing generation, and to do it more or less consciously. Philosophers and educators have developed their plans, fully conscious of certain aims in view, hoping they may be realized in the growing

youth. Thus Plato expected the realization of his social ideals by seeing the growing generation rise step by step to higher planes; Rousseau intended a rejuvenation of society through improvement in education and instruction in conformity with Leibnitz's dictum, "*Si l'on reformait l'éducation, l'on reformerait le genre humain.*" Fichte, who seized upon Pestalozzi's ideas, confidently expected the renaissance of his nation by the aid of a new national education. Luther demanded that the reformation of the church begin with the children; and in Alsace the hope of patriots rests upon the rising generation.

At present education is called for also as an ally of the state and the church, and it is public-school education which is meant. The state intends to lead school education as its ally into the field against destructive currents that are threatening to undermine its power; the church tries to reconquer by means of instruction in religion what it has lost among the people. All such efforts are in vain, for though the school may be expected to instill into the life of the young generation new thoughts that may serve as guiding lines when this generation has become adult, its influence will prove powerless if it is pressed into the service of existing institutions that oppose popular currents.

It is always objectionable to call upon the school to aid in a fight, for the school is a domain of peace. Here the artist, and not the warrior, is to work. On its threshold the waves of contention and strife must break, for immature minds grow best in the atmosphere of peace, until they are strong enough to participate in the labors of the day as ethical and religious persons filled with the love of national culture.

But at times in which strong movements make themselves felt in opposition to existing institutions and principles, the idea is always at hand of influencing the rising generation through school education so that they may become pillars of throne and altar. This thought lying so near, we need not wonder when those in authority in the government of state and church attempt to make their power play upon the rising generation and force them into certain directions of thought and development. Can this be done? we ask again. First, we may remind the reader of the fact that in human affairs a sharply defined tendency invariably creates an opposing tendency. I merely mention the political and religious radicalism of many elementary school-teachers, which is the inevitable fruit of a normal-school education tending to make meek and pious teachers. Persons may be forced to a certain degree, but ideas never. Into their depth no ruler's decree will penetrate, not even that of the most energetic and powerful man. That is the tragic element in those endowed with power which may kill persons but can not vanquish ideas. Ideas are invariably stronger than generations of rulers.

But should we let chaos rule in education by yielding to every new idea that may spring up? By no means. Education, of all things, should be kept free from partisanship in political and religious wrangles. It should firmly adhere to that which will abide, outlast the times, and

in the current of conflicting opinions will form the firm ground upon which we can keep a foothold.

To be sure; but what is abiding? Is it that which the old education transmitted to us? To a certain extent, yes. When Goethe, in the pedagogical province of the "Wanderjahre," declares veneration to be the fundamental principle of all education, we agree with him. For education aims at culture, and veneration for that which has been considered venerable at all times and by entire generations is a characteristic of true culture. In promoting this culture education is kept free from frivolous mockery as well as from thoughtless routine. Permeated with the feeling of having its roots in a soil that has been prepared by countless generations of men, it yet faces without prejudice the acquired treasures of art, and examines what of new possessions we have in state, church, and society deserving transmission to the next generation in order to enable it to continue the noble work of developing culture.

In this becomes apparent the profound difference between the old and the new education. The former, in estimating the accomplishments of culture, restricted itself to the transmission of knowledge for its own sake; modern education moved this transmission into the focus of character building, which idea is at present the central fire with which all processes of education and instruction are illuminated. In this central fire all special purposes and tendencies melt—tendencies which would narrow education down to pitiable dimensions. The state can expect of its schools that they will educate good citizens, but it must not claim of them the training of partisans. Likewise, the church may demand that the pupils become believers in divinity, but it can not demand that they be prepared to enter a definite theological system; or, in other words, the schools must remain undenominational.

Our educational institutions (in contradistinction to professional schools) can have but one aim in view: The formation of ethical character—that is, to lay the foundation of the character as firmly as possible. This chief object is void of all special purposes. We intend to educate neither people who are politically orthodox, nor strict church people; neither those who are practically inclined, egotistical men of the world, nor worshipers of idols, but simply human beings who are filled with ethical ideas, in which the abiding part of the development of humanity is crystallized, and which indicate the directions further development is to take.

There is something curious in this. School education of the present day follows ideals, yet the result, as is often lamented, seems to be the opposite: A race void of ideals. In former times people were not conscious of this aim of character-building; the young were merely instructed, and the result was a generation devoted to ideals. Is this a law in the life of nations that, when a people begins to loosen its ethical tension, the demand for an education tending to develop ideals



appears stronger than where the soul of the people knows nothing of egotism and love of money and spontaneously aims at the highest from inner necessity? When we hear it said that in times of a nation's degeneracy an ideal education is a powerful remedy against the evils of the time, we are tempted to believe in the truth of the law; but instantly the doubt arises whether education can accomplish much where the atmosphere of family and society is filled with pest germs, where an ever-open chasm exists between the idealistic flight of the school and the materialistic current of the home and the times.

The old education evidently had an easier task. Its spirit was the spirit of society. The school could sin a great deal without injuring the pupil's soul, for that soul could constantly be refreshed by the power emanating from the family. At present, when the family, during this terrible state of unrest through which our generation passes, is losing its strength and influence, it is to be replaced by the power exercised by school education. Modern education is conscious of this difficult task and all its recommendations center in the thought of ethical training, to which even simple instruction is to become a servant.

It is true many view this attempt with skepticism. Many, relying upon the law of necessary reaction, claim that two generations following one another are different in their inclinations and views. According to this, the influence of the education of an older generation upon the younger would be essentially negative. The fact is pointed out that very talented scholars develop most frequently in opposition to their teachers. These gifted students commonly gain decisive influence over their contemporaries by being men of action, artists, and influential authors, similar to the historical changes on the great stage of humanity which have taken place almost in opposition to education. Thus, for instance, the first Christians had a Jewish education, the Humanists had a scholastic education, the Church Reformers had a Catholic education. The same rule holds good in other manifestations of the human mind; for instance, in art. Hence it is often considered a useless attempt to gain immediate influence over a whole nation by educating its youth in particular directions.

We do not share this opinion. As it is impossible in any individual case to determine the boundary between the influence from without and the growth from within, so it will be difficult to determine what in the life of nations is transmitted from the adult generation to the younger and what the latter produces out of its own power. The mutual influence is so intricate that it would need the art of a divine being to disentangle the finely interwoven texture and to follow down to their last roots the infinite variety of combinations between educative influence and inner growth. It is enough to know that both the old and the new education presuppose the possibility of culture or training. Why else should we trouble ourselves to build up a system of education and calculate upon certain results by correctly applying it? The idea of



plasticity always stood in the foreground of educational considerations, but perhaps modern education is somewhat more cautious in its expectations. Helvetius thought that the pupil was entirely a product of influences emanating from education. Fichte said: "If you wish to rule man, you must do more than merely address him; you must fashion him so that he wills nothing but what you wish him to will." This is evidence of a noble enthusiasm for the cause of education, but it is not in harmony with the facts. On the other hand, modern education will be very careful not to go to the other extreme; that is, to see in the pupil only a product of heredity. If such a position were taken, all educational influence would be precluded; it would be powerless against unchangeable conditions such as nature has dictated.

Though the influence upon the growing generation can not be determined with mathematical accuracy, yet the effect of education is powerful enough to reckon with it as a factor in the life of the individual as well as in the life of society. It is an historical force whose effects may seem neutralized at times by powerful influences, but they continue to work below the surface. Luther, despite his revolutionary tendencies, remained a good Catholic. It is known that in later years the impressions of his early education made themselves very strongly felt. Bismarck also remained, despite the revolutions caused by him, a thoroughly conservative man. All great reformers, however strongly their ideas may resemble revelations, derive their ideas from times past, and their early impressions affect their thoughts and actions continually. Thus we see that education does not lose its effect upon a generation which is the bearer of an historical innovation, and wherever it is a question of fixing certain thoughts abidingly in the life of the younger generation, the power of education will be instantly revealed.

Hence it is plain why it is attempted to wrest this important factor in the life of nations from the hands of chance and weave it according to definite principles into a system supported by a unifying spirit which enables it to combine and direct the various processes of education. The first to do this was the philosopher Johann Friedrich Herbart. With him begins modern education in Germany. It walks neither in the tracks of state education nor in the grooves of church education. It is conservative in so far as it penetrates with its roots deep into national and Christian soil and continues to spin the historical thread. It is reformatory in so far as it does not consider good that which exists because it exists, but tries to eliminate from education all the dead issues, everything that is laboriously dragged along as dead ballast by the people. It is the science of ethics which furnishes the standard measure for the decision as to what is alive and what is dead; ethics is truly socialistic, because it attempts to comprehend the life of the individual solely from the standpoint of his living together with others. Whatever in the mind of mankind has gained an abiding ethical value and absolute authority is crystallized around definite

ethical ideas, the realization of which in the life of the individual as well as in society must be considered an unwavering aim of education. By deriving its objects from ethics modern education obtains an aim that is morally necessary, abidingly fixed, claiming recognition through the power of its internal excellence, an aim which will not change under the wavering opinions concerning good and evil, one which will not follow fashionable philosophy blindfold, but outlasts the times, because it comprehends that which constitutes the true value of man's life and points to an ideal which in its sublimity rests upon itself, the ideal of virtue.

The methods which are used to realize this ideal in the heart of our youth are derived in modern pedagogy from the laws of intellectual life; it applies the psychological method in order to gain a reliable, sure way to its end. The necessity of aim and method secures for education thorough freedom—that is, freedom from transient ideals of the time and ever-changing fashions. It places education upon its own basis in a much higher sense than ever before.

Though the aim of education could not be surpassed since the teaching of the Nazarene, it has frequently been obscured, weakened, and suppressed according to the manifold ecclesiastical and secular considerations that determined the leaders. Modern pedagogy has, above all, the task to clearly define the purity and inviolability of the core of ethical convictions, which core has outlasted centuries and determined the direction the development of the human race has taken. In this it is in the truest sense of the word conservative and will not bow to the urging of juvenile enthusiasts, or prattlers without conscience, who intend to dissolve everything ethical in the muddy current of changing opinions of the day. It is reformatory, however, in the search for necessary ways, means, and methods in education. In this it will be the more successful the more psychology follows the development of the juvenile mind, in order to shed light on the twisted paths of the mind's growth. The unification of the whole is secured by the fact that the sublime ethical aim, the fundamental idea of educative thought, forms the center around which all educational influence moves upon the growing generation. The aim of education and instruction is plainly distinguishable, but the dependence of the latter upon the former is also clear, because the end in view of instruction is derived from the aim of education. From the final aim of education is derived the demand for "educative instruction" that does not put into the foreground the mere acquisition of much knowledge, but the awakening of a strong, many-sided interest. It alone is able to give true education, while the former may be compatible with complete barbarism and a certain degree of idiocy. Our schools, which, with their apparatus of periodical examinations and inspections, etc., tend toward an accumulation of many disconnected fragments of knowledge, have been steered into the wrong direction, from which only "educative instruction" can

save them. In addition to this, it must be sharply emphasized that the ideal of education in modern pedagogy is not only an ideal of unfolding of the intellect, but also an ideal of unfolding the disposition (*Gesinnung*). The education of the will is the chief object; intellectual and mental training are merely its servants. Without doubt the will is the most important phenomenon in the domain of mental activity, the highest point of all internal processes, the bearer of the ethical value of the personality. This has become clear ever since Kant emphasized the will, and hence it has become more and more obvious to the educator in what direction his efforts should go.

From a purer, more exact, and higher comprehension of the aim of education results a more correct gauging of the means of education. The Pestalozzian formula, "Number, form, and speech," has lost its power; in its place the history of civilization has become the dominating factor. With that a double gain was secured—the transmission of valuable contents of culture to the growing generation, and a firm construction and an inner connection between the growth of the individual and the growth of mankind.

With this the foundation of personal individuality was laid, an indispensable condition of the development of volition in harmony with character, and now modern pedagogy could approach the problem of framing a course of study that could furnish the conditions of rational intellectual education. This problem could not well be considered until the aim of education had been clearly and precisely defined, and the educational force of history had been plainly recognized.

Starting from the idea of apperception, modern pedagogy attempts to disclose the process of learning according to its true nature, and to follow by immediate application the principles thus formed. In this lies the great practical value of modern pedagogy in real educational work.

Would that it were recognized by all engaged in the education of the people! It would then perform a noble mission in the development of the nation; for, owing to the prevailing evils, a mere increase in knowledge is powerless, yes, even injurious. Engrafting into the hearts of the people pure and beautiful sentiments alone can eliminate or replace that which is distorted and injurious and apt to disfigure the life of the nation at present. To that end modern pedagogy directs all its energy, it being wholly devoted to the ideal of a society saturated with ethical ideas; it attempts, as a means to that end, to reach the ideal of nobler human individuality.

It is true, a system of education, however excellent, will not suffice, for to make it effective in the growing generation educators are needed who are convinced of the truth and grandeur of pedagogical science, and possess the artist's skill in making effective what they intend to have effect. How often have the plans of prominent princes and statesmen been shattered because the executive organs failed to fully com-



prehend the spirit and guiding ideas of the leaders, hence failed to realize them? The ancient contrast between plan and execution makes itself felt also in the field of education. In order to overcome it modern pedagogy has turned to the problem of the best professional preparation of educators and teachers, a question which the old generation viewed with supreme indifference. "Only get knowledge, and the gift of imparting it to others will come by itself." "Only have spirit and you will know how to awaken spirit." These and similar sentiments were heard that arose either from boundless pride or criminal frivolity.

However, the needs of the time make it imperative to call into existence institutions which will promote the preparation of teachers. In establishing such institutions pedagogical considerations have not always been heeded. It was overlooked that the centers of intellectual culture, our universities, should by right also undertake the task of preparing the educators of the people who can not only comprehend the entire organization of our educational system, but also perform the detail work of education with artistic skill and devotion. A false notion of the object of our universities and their duties seems to dim our eyes. In the United States the universities are much less prejudiced in this as well as in other respects. It will not take long for them to surpass us, as they are establishing pedagogical chairs that will consciously, and with well-directed efforts, influence the development of the entire educational system of the Union.

That is the point where we make a mistake. If, however, we notice the progress made in this respect by modern pedagogy in Germany over the views of former times, we may entertain the hope that the future will supply that for which the present lacks comprehension.

With Lessing's theses on the education of the human race, with Schiller's letters on esthetic education, with Goethe's great didactic romances, with Fichte's orations to the German nation, with Herbart's General Pedagogy, a new epoch in pedagogical science has been opened in which the present participates, not in the sense of lifeless erudition which rejoices in the accumulation of printed pages, but in the sense of a living force that permeates the life of the nation and makes its influence effective upon the education of the rising generation.

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## II.—IS GERMAN PEDAGOGY IN A STATE OF DECOMPOSITION?

The foregoing article on the New Education in Germany is put in bold relief by the following, written by Dr. Friedrich Dittes, the editor of *The Pädagogium*. Dr. Dittes is the author of *Die Schule der Pädagogik*, a great authority on elementary education in Germany and Austria, and it seems therefore proper to hear him in connection with the foregoing article. There is an element of personal regret in his words that may have its origin in the waning influence of Pestalozzian principles and practices which Dittes advocates, but much



of what he says is so eminently applicable to the conditions in this country that a translation of his article is more than justified. This is what he says:<sup>1</sup>

Is German pedagogy at present progressing or degenerating? Looking back upon a half century, during which I have spent my time and strength partly in the study of the science of education in all its parts, and its various historical stages of development, as well as in the study of its supplementary sciences, especially philosophy, while during the same period I have worked professionally in a number of positions with all the intensity possible, I can, alas, give no gratifying reply to the foregoing question. I never neglected to keep an eye upon cotemporary currents and events, while occupying myself with the scientific foundations and the traditional acquisitions of my profession. For the last thirty years I have, moreover, been obliged by literary duties to pay conscientious and thorough attention to all new publications in this field, and even now I have to read a number of foreign and about forty German educational journals, and receive weekly a large number of new pamphlets and books which bear either directly on pedagogy or stand in some sort of relation to it. To look over all this mass of literature I spend several hours a day. I mention this merely to show that I think I am sufficiently informed concerning the present status of our profession. Though in former years I had no reason to conceal my opinions, I scarcely need to give the assurance that now all considerations that might prevent me from giving utterance to my opinion have disappeared. I shall with customary candor do my duty. And now to the point.

In another place I recently published the following remarks:

With reference to pedagogy itself in its entire extent, as well as its supplementary sciences (this word is to be taken in the widest acceptance of the term), I have had no occasion to change my views, although up to the present day I have followed all the accomplishments and movements in this field with the greatest attention and have heard all the clamorous calls for reform. During the last few years various philosophic, natural-historic (especially Darwinistic), physiologic, pathologic, psychiatric, socialologic, political, and other doctrines have been put into play in order to open new roads for the science of education and instruction. Yet the upshot of it all has been nothing else than an announcement of a few well-established truths as new discoveries, and a number of tottering hypotheses, one-sided demands, and obvious nonsense, which all prove that their originators would do well to learn something first before they play the rôle of reformers. For their dogmatic criticism of the old pedagogy, as well as their projects of reform, prove distinctly that they are at best well-meaning amateurs, in most cases precocious smatterers, or bold ignoramuses. He who intends to sit in judgment over a science and give it direction must cer-

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<sup>1</sup>It is desirable to state that in presenting the views of Dr. Fr. Dittes it was impossible to eliminate the asperities of the author without doing violence to the opinion he represents. The uncompromising position he assumes is in itself a very strong argument and deserves to be retained, especially since the other side is so ably advocated in Professor Rein's article preceding this. Dr. Dittes is by far the most authoritative educator in central Europe, and a statement of the present status of pedagogy in Germany from his pen deserves the most reverend consideration.

tainly be better informed than by a superficial or fragmentary inventory. And as far as pedagogy itself is concerned, this most universal of all sciences can not be derived and construed from the opinions and postulates of this or that specialist, or from picked-up and not even correctly understood fragments of any speculative system, lest one grope from one misleading attempt to another, and finally lose all secure basis. Indeed the bungling work of meddlers in the field of education has already given rise to the opinion that pedagogy is not a science at all, which opinion hits the nail on the head where nothing is known of pedagogy, or where it is made the arena of subjective whims and wild riding of hobbies.

With these words I have just introduced the fifth edition of my *School of Pedagogy*; hence it is easily understood why at the opening of a new volume of this monthly (*The Pädagogium*) I should desire to enlarge upon that text. In their critical garb my words express the decisive reason why, despite my weakened constitution and other considerations, I feel constrained to continue my work as editor, though I would willingly lay down my pen if I saw pedagogy in a healthy state of development.

That is not the case. Externally, yes, it has grown beyond its former limits. There are at least a quarter of a million of persons of German nationality occupied in the profession of education and instruction, and among them there are thousands who do not only practice pedagogy, but have the earnest desire to reform and develop it, who, however, think their practice too insignificant for their talents and seek their life's object in reform. Among them are many who, conscious of their epoch-making originality, entertain the idea that they could do without an earnest study of professional literature, and yet pronounce a decisive judgment concerning it. This judgment invariably reads: "All of the old pedagogy is worthless; it is merely a collection of vulgar opinions, groundless assertions, arbitrary regulations, trivial recipes of schoolmasters, etc. The founders and coryphees of the old school did not understand anything; they have been surpassed and pushed aside by the great progress of our age; they must be thrown into the rubbish chamber with all their worthless trash, so that the needs and demands of the present day can be heard and heeded." Therefore we see springing up reform magazines, reform articles, reform pamphlets, reform books, and no end of them. I may safely say more of them would see the light of the day if only the publishers could properly estimate the works offered for publication and could pay for them, or if publication at the cost of the author was not so expensive. These latter reasons combine to let so many hopeful authors leave their new roads unconstructed, or see their plans despised by an ungrateful public. I have often been obliged to deny my assistance as an accoucheur for these original geniuses, and have harvested ingratitude, although I can candidly say that this ingratitude is more pleasing to me than the consciousness of having aided in populating the pedagogical field with monsters.

Outside of the circle of representatives of our professional science, also, there is at present a large number of workers and reformers who

chiefly act as amateurs, but, as a rule, have no smaller opinion of themselves than the aforementioned class, and think that they tower above them in possession of science and brains. Among these we find some university professors and some who would like to be; for instance, philosophers who think they have discovered a new principle that is likely to aid the perplexed science of pedagogy as a guiding star; or medical men who work in school hygiene, neurological and clinical specialties, psychological investigations, "psychopathic deficiencies," doctrines of heredity, etc. Furthermore, writers of fiction and other polite literature, who partly utilize in belles-lettres what new and sensational ideas the aforementioned authors publish and partly draw upon their own accumulation of imagination and truth, and who write works of which they claim that no teacher should "leave them unread;" also journalists and other free lances who intend to point out the way to education from still other standpoints—political, social, economic, and Heaven knows what.

In short, pedagogy has doubtless increased in horizon and extent; but what about its inner value, its fundamental basis, its harmonious structure, its convincing power? Are these attempts at reform at present to be reviewed as progress or retrogression? Indeed what is this most modern of all modern pedagogies at the end of this nineteenth century? It is a Proteus assuming daily new forms, difficult to grasp, because he knows not himself what he wants. Only one thing is repeated again and again: "Everything old is worthless, something new must be produced at any price." Reasons seem to have no weight, either in rejecting the old or in creating the new. Sense or nonsense is all the same, so long as it offers something different from what there was, as it suits the character of Proteus. Of course anybody can play that rôle, because without professional knowledge anybody can speak and, in a measure, may be justified from the standpoint of individual autocracy.

A few examples may show the results of this kind of reformatory activity. We shall select mainly works which prove a partial familiarity with the subject and an independent conception, leaving out of consideration all that literature which shows after a brief examination that it is void of inspiration and deserves an ignominious death in the wastebasket. Let it be said emphatically that in rejecting erroneous projects of reform we do not wish to injure their author's positions or their other literary works, since several of these gentlemen have furnished estimable productions. It must be understood that it is not our task to rescue traces of good work and place such work upon a sounder foundation, but to demonstrate the destructive tendency of feverish attempts at reform and progress.

A few years ago a university professor made the remarkable discovery that all the pedagogy of former days suffered from the fundamental error that it was purely individual pedagogy; that kind of education had lived to see its day; our time needed a new, that is to say, a social



pedagogy. Immediately this great reform idea was elaborated and commented upon in various educational journals. At first I was very much astonished over the announcement of this discovery, since not one noteworthy educator was known to me who had regarded the child solely as an individual, and not also as a social being. It is generally understood that even Plato and Aristotle emphasized this point of view, and nearly all the classic writers upon pedagogical science have done due justice to it. Exceptions are Locke, Rousseau, and Herbart, who practiced "tutor pedagogy," and considered and treated the pupil chiefly as an individual, without, however, ignoring on principle his social destiny. But the discovery had been made and was faithfully repeated. It was especially aimed at Pestalozzi, who was denounced as the antisocial educator of our era; hence that he was worthless. And that was said of him who, above all, had so warmly and emphatically pleaded for the social importance of education! How was this riddle to be solved? Easily enough, for it was merely a confusion of ideas on the part of his persecutors. These gentlemen did not understand by the term individuality that which is generally understood in pedagogy, but its very opposite, namely, the typical in man, the generic character of the human being. That Pestalozzi, together with Rousseau and Kant and others, had been sensible enough to admit that the child should be, above all, a human being, possibly a complete, entire man, developed in every direction of his inborn capacities, if in future he was to be an honored member of society—that Pestalozzi saw in general human culture the foundation and presupposition of all special professional education, is a thing which to-day is considered an old-fashioned folly, for it is thought now that the human being possesses value only in so far as he serves the state, the church, and society, or certain interests of a social class and profession, and he is to be drilled *ad hoc* as early as possible and restricted within a very small horizon of knowledge and duties. Nobody, it seems, is allowed to be a whole man; that is to say, a man who is something for himself; he is to be only a fragment, a stone in the wall, an available material, a useful tool, a member of the serving or ruling strata, a laborer, an officer, etc.; but not a man, for such a thing does not exist any longer; that is merely an abstract idea, a phrase, a cosmopolitan fraud.

Another university professor has found "that Pestalozzi had arrived at no inconsiderable errors by his exclusively speculative presupposition of a fundamental difference between the sensual nature of the animal and the transcendental nature of the human being." Well! Pestalozzi and exclusively speculative presupposition—that is indeed a new combination. Those familiar with Pestalozzi know nothing of it, and they would like to hear from the Professor what errors they were into which Pestalozzi by his exclusively speculative presupposition had fallen. Probably he had refused to do reverence to the fashionable "Monism," like that other famous Swiss who refused to bow before the



hat of the governor. But this professor himself announces as the fundamental demand of his reform plan that we must recognize "psycho-physical parallelism." He ought to know from elementary mathematics that for any kind of parallelism there must be at least two lines or planes; nor can he deny that there can be no psycho-physical parallelism if there are not at least two kinds of phenomena as objects of the investigation, namely, the facts of external sense perception and the facts of self-consciousness. It is not a question of an exclusively speculative presupposition, but it is a plain question of facts. Moreover, the aforementioned parallelism, as far as it is demonstrable, has long been recognized in popular view, as well as in science, sometimes even, as with Spinoza, in an exaggerated manner. The science of pedagogy has always recognized and appreciated it and did not need a new revelation in this direction. The Professor furthermore informs us "that education must not begin with the formation of ideas, but with the correct selection of stimulants" from which would result "the correct sensations and representations in the memory." This may be to him a new discovery. Educators knew it and practiced it and found it applied in the best manner in the work of Pestalozzi and all the most noted psychologists of whom the Professor does not even seem to know the names. We might do without his ideas of reform, for that which in them tastes of originality—his assertions concerning the processes going on within the skull—is something which he had better submit to the approbation of his special colleagues. Pedagogy has at present no use for it.

A young doctor surprised us with the brief declaration that "pedagogy as a science is a conquest of our era;" and then he proves at length that there is nothing in this conquest of our era. This apparent contradiction arises from the fact that the doctor has in mind only the pedagogy of the so-called scientists, which, it must be admitted, is a conquest of our era, and a very puny thing at that. Formerly it had served our doctor as wet nurse, but now he turns away from it, because it is only "that which schoolmaster pride calls scientific pedagogy, and because it has fallen into discredit with the most noted representatives of science; that this was the cause of the fact that people did not any longer wish to hear anything of pedagogy as a science." That is certainly correct, but that there is another and older pedagogy of scientific value seems to be unknown to the gentleman; naturally, for in his own school he had heard nothing of it, hence he argues:

The present has no scientific pedagogy, neither had the past any, consequently it must be expected from the future, and it must first be created. For that purpose a combination of pedagogy with psychology is to be established, of course, with modern psychology. Others had thought of such a combination before, but useful books in this sense had been wanting almost entirely.

Thus speaks the gentleman, of course, because in the inventory of his school he had not found anything suitable for his purpose. Hence a reform must be inaugurated, or, as he terms it, a new formation from

the very foundation upward; that is to say, starting with the aim of education that must be decisive for the entire science, an aim that has not been correctly understood heretofore. Again, this aim must be modern—that is to say, the educator as well as the pupil must be guided by the view of the world, of his nation, and his cotemporaries with reference to ethics, economics, and politics. Concerning the ultimate end of all human aspirations and actions, the relations existing between us and the universe, between us and the fundamental principle of the world, “everyone should have a completely rounded-off view, so that man should do everything in the service of the absolute, and consider himself the bearer of a higher idea and the executor of a divine will; yea, actually, at all times be a part of a world-immanent divinity wrestling and contending under many modifications.” This modern view could, of course, not be determined by any individual, but must be only a sum total of “scientifically examined and well sifted” results of investigation concerning which “speculative philosophy” alone should decide. It may be rejoined that in speculative philosophy there are just as pronounced contrasts as there are in the opinions of the great mass. This fact the doctor seems to have overlooked. However, for the actual world he proclaims the “variability of views”—again a genuinely modern idea; but in things metaphysical, absolute, transcendental, and incomprehensible everything is to be philosophically determined and fixed. For this purpose, I think, the authority of this doctor will not suffice, and humanity will have to wait until the end of its days before it will get a pedagogy, if it is to wait for the determination of its aim. Analogous demands have never been put to any other science; indeed, there would be no science if it had heeded any such demands.

Should this young doctor try his hand at it, others will comfort themselves with the conviction that he will never succeed in producing anything of lasting value. Human reason does not suffice to solve all these problems that are now placed as traps at the gates of pedagogy. Every new attempt at overturning, by means of metaphysical dogmas, the iron-bound limits of our understanding will end in disaster. For what should we have to expect if once again, by means of some power, the mania would prevail that man could actually combine and identify himself with the origin and fundamental principle of the world, could consider himself as the executor of divine will; yea, a part of the Divinity? It would not be the first time, for it was done during the Middle Ages, and it has cost countless victims of torture and the stake. It is true there are even to-day people who would revel in the most frightful fanaticism if they only had the power. But is pedagogy called upon to serve these people? Doubtless the doctor has found in his former school enough of such fanatics; unfortunately his leaving it has not freed him of the poison it instilled in him. To adorn blind self-aggrandizement with a nimbus of erudition is doubly dangerous in our days, in which upon every curbstone the gospel of modern superhumanity is

chiming in with the battle cry of the soldiers of the cross of the Middle Ages. One may class this among the many excrescences of the *fin du siècle*. I for my part confess that I have not the genius to appreciate it, and that I am still standing on the narrow platform of Goethe, the man "so poor in spirit," who "has been shoved aside," who said, "With the gods no man should dare to measure himself." I hold that man should not want to know more than he is able to know, and he should certainly not, with his foolish, impotent plans, consider himself the executor of the divine will. We should advise him whose natural sense does not tell him, if he has a strong mind to apply the art of an ancient pioneer of the German mode of thinking, a good, strong dose of Kant's critique, which, alas, does not any longer seem to be in favor among modern speculative thinkers.

If thus far pedagogy "from above" is promised from the highest pinnacle of speculative philosophy, and a view is opened from the theology of revelation, we now turn to another reformer. This time not a professor nor a doctor, but a very fertile spirit, who is ready to present us with a pedagogy "from below," as his inventive genius terms it. People acquainted with the catchword will know that we have to deal with an apostle of children's psychology—child study. He is a genuine councilor of confusion, and it is not to be wondered at since he claims to belong to the "scientific pedagogues." With the well-known scientific accuracy and love of truth, he claims for those engaged in child study the merit of having shaken the omnipotence of the Socratic or catechetical method. As is well known, Pestalozzi has done that in a more satisfactory manner. Then he proclaims a principle, and a thoroughly scientific one it is, as he says, by asking: "How does man develop, and what must, therefore, be offered him?" And he simply refers to the probable foundation of Ziller's theory of culture steps, while this educational theory had found its most renowned adherents in Comenius and Pestalozzi. To do justice to these masters, however, does not seem fitting for the presumptuous bungler, lest he would have to recognize in the theories of these masters something "thoroughly scientific." With the same accuracy with which he sketches historic momenta, our pedagogue "from below" constructs the theoretical foundation of his project of reform. He speaks of "faculties" which the educator may train. His chief authority, however, is Herbart, who recognizes no faculties, hence no training of faculties. We see, then, that he frames a doctrine diametrically opposite, according to which everything is inborn. He is ready *cum grano salis* to assert "man is perfect when he arrives in this world." This is to mean that the baby possesses the beginning of everything, and this is what the gentleman calls "thoroughly scientific." Our pedagogue "from below" lays special value upon the views of children, for his watchword is, "I go to school to the child." The ingenuous reflections concerning stories, such as the Seven Little Kids and The Bremen City



Musicians (see Grimm's Fairy Stories), as he tells us, he has directly from the lips of his pupils, which proves that he has very good guides in his child-psychology, for these children know, also, that these stories are merely composed so "that they should have something to read," and they tell him, also, "how these stories could be immensely improved." Experienced people will of course doubt the fact that this wisdom of childhood is purely the result of the genius of aspiring youth, or whether it has not been the result of adult influence, whether it was not prompted. This is a doubt which has at least as much justification as our reformer's doubt in the reliability of the material collected from the psychology of children by other people. In fixing the simple data from the development of the child's soul, the greatest care and circumspection is necessary. How much more critically must one proceed, as our pedagogue "from below" does, to make the expressions of precocious children scientifically applicable! The fiction writer can form the types of his children as it pleases him; the educator must use the greatest moderation, and if he, like our reformer, would use fiction, he would have to distinguish carefully between poetry and truth, a fact to which the "ancient Goethe" called special attention by the title of one of his works. Otherwise it might happen that an educator would get the reply from a boy who has been made a literary source, that his father had just composed or rhymed together a sort of a story of his course of development. Now, think of being called upon to listen to the precocious remarks of juvenile philosophers with respect and approval! This is pedagogical folly.

The renowned "scientific" pedagogy is sinking indeed lower and lower. It began with drilling unripe youths into bold, presumptuous prattlers, and now it intends to make the A B C pupils professors of teachers. It will not take long, and children will assume the professorial chair and the teachers exchange seats with them. That is the true "pedagogy of the future" imagined by our author who prattles of a pedagogy "from below" worthy of the science of our day. Truly modern is this, and perfectly in harmony with the spirit of the time, which is also working in politics and religion by allowing the uneducated majority in noisy mass meetings to reveal to its honored candidates how they shall legislate and act, while the candidates flatter the dear "voting cattle" with sweet words, or while the fanatical disciples of "fighting ecclesiastics" demonstrate in denominational congresses which is the true faith and the inalienable right of the church. All this is done so that the government and public authorities may hear the voice of the people and read in it the voice of God. This is similar to "modern" science, and, above all, to pedagogy "from below," which is to be reformed by children and ignoramuses.

Our author acts as though child psychology was entirely a terra incognita and had to be discovered from its first elements. He asks of his colleagues that they should, according to a plan agreed upon, note



down what things interest children and whatever else they may observe, so that "from the aggregate may be deduced that which is typical;" or "everyone should publish independently what he has found." Unfortunately many good, successful teachers withhold their valuable experiences; possibly they are those who do not think it practical to repeat ever-recurring trifles in unending variations, men who remember the classic words "Seek honest gain, don't be a fool who tinkles with his bells." Yet, this is better than the publication of speculative "experiences," the authors of which claim to be the discoverers of typical stages in child psychology. Our reformer interests himself, for instance, in the question, "At what age do children begin to criticise fairy stories?" By which we suppose he means, begin to doubt them. He answers the question, "According to my experience this takes place at the end of the eighth year of life." Well, well, well! Why not in the middle of the seventh, or at the beginning of the tenth year of age? That depends entirely upon the individuality of the children and upon the special circumstances of their education; precisely as in one place the inventory of concepts of a 6-year old child is not necessarily the same as it is in another place, because the objects and phenomena in the horizon of the one child are different from those of the horizon of the other. He who intends to construct an inventory of typical concepts that holds good for all cases—in other words, he who will construct a child psychology according to a given pattern, simply proves that he does not understand anything of psychology at all. That which in the development of the child's soul, and in fact of the human race, is typical has been clearly and distinctly proven long ago, and every true psychology is at the same time a child psychology, because without knowledge of elementary development of the soul the comprehension of a higher mental life is impossible. It is precisely in this as it is with the sciences of the organisms of external nature, which must not ignore the embryonic manifestations of life if they wish to understand the sum total of development. But for that purpose there is not necessary a special botany of nurseries, neither a special biology of chicks, nor a special psychology of calves. But our pedagogue "from below" does not know what he wants; he has not learned anything of noted promoters of child psychology, of whom one may enumerate more than a dozen; hence he comes to the conclusion that up to the present day we know nothing and that all is a chaos, in which statement, as far as he is concerned, he is perfectly correct. While thus declaring that his pedagogy "from below" is still in the far future, he guides his little ship back into the safe harbor of the Herbartians, who build "from above." We are inclined to wish that he would stay there and complete his inventory before he enters upon new adventures. That will save him much useless trouble and would secure well-earned stability to the pedagogy "from above." That school begins in canonic manner

with a simple being, granting it five ideas, six kinds of interests, and speaks of the strength of ethical character, of government, discipline, and instruction, of apperception and concentration, of culture steps and formal steps, of analysis, synthesis, association, system, method, and other furniture that has been used with comfort and facility before. It is easy to continue this *ad libitum et infinitum*, till doomsday without any practical result whatever, yet such talk will create the satisfaction of being a "thoroughly scientific pedagogue," and secure a numerous crowd of disciples, for the race of those who would like to become "scientific" in the most comfortable and cheap manner possible will not die out readily; nothing can be cheaper than the fee which admits to the chosen circle of the so-called scientific pedagogues. If, however, a profane Mephistopheles asks: "What kind of stew are you making?" they may give the classic answer: "We are cooking three beggar-soups," whereupon the comforting assurance may be given: "Then you will have many customers."

This stew is quite prickling to the taste, and now and then it induces habitual guests to an analysis of its ingredients; especially the noted "interest" enjoys thorough investigation nowadays; and a German normal school principal has recently devoted a whole book to it. As an independent thinker and principal opponent of Herbart's theory, he treats this fashionable article in his own inimitable manner; but it is difficult to see how the science of pedagogy can be enriched thereby. It is true one can crowd almost everything into a treatise the subject of which is a catchword. The title "Psychologic-pedagogic monographies" is elastic enough to admit subjects like interest, concentration, apperception, memory, imagination, will, ethical character, etc. They can be placed in the focus of psychology and pedagogy, and yet in ever-recurring repetition mean essentially the same things; but in so doing the authors often tear asunder the elements of science—that is, they place them out of their generic connection and confuse them, partly overlooking or undervaluing, partly violently stretching and adjusting them, as though they were to fit a Procrustean bed, all for the purpose of fitting them to a pattern. In this manner the entire science of pedagogy gets out of plumb, it loses its symmetry, and while some of its departments lie fallow, others exhibit luxuriant but sickly growth. One of these subjects is the frequently discussed interest, a dropsical, swollen oaf among the psychologic-pedagogic concepts. The older theory of education sufficiently considered that which is designated by this term. German pedagogy did not need to wait till by means of a high-sounding technical term a new world should be opened for the wonders of which the mother tongue had no name. And instead of courting this suspicious bastard that at first bore the recommendation of being opposed to all eudemonisms, yet identifying itself more and more with the most outspoken egotism of modern interest hunting, it would seem to be timely to speak a little more of duty and honor.

It is actually nauseating to see our children listened to to find out their interests and to instill in them for the future nothing but interests. A smart reformer, also a German normal school principal, has moved a step forward. First, he proclaims the principle: "Our common schools must be institutions for training above all." That we all knew long ago, and no one had taught it better than Pestalozzi, and the common school was an educational institution as long as Pestalozzi and his disciples were appreciated. But now it is to win its highest triumphs in being lifted by interest-mongers upon a higher plane. Already the idol of six heads is not many-sided enough. The priest just mentioned has increased the number to nineteen different kinds of interests, and adds complacently, one might easily find another. The entire matter of instruction in the common school is henceforth to be selected and arranged exclusively according to these nineteen interests, which our reformer presents in an elaborate plan. This he claims to be the ideal of a common school. Finally, he remarks: "If, for the purpose of accomplishing this end, I have sometimes used other means and ways than other people, it must be remembered that the world is mirrored differently in different heads." There, that's the thing; that's the characteristic sign of our times and an inborn fundamental right of the modern race. Every individual has the right, from childhood up, to think and to will to please himself, and if you demand anything of him you must make it suit his interests, of which there are nineteen kinds, by the way.

This autocratic tone becomes more emphatic in another reformer of pedagogy, who declares without reservation: "The firmly grooved systems of thought acquired during my school time have fallen apart" (he formerly belonged to the scientific pedagogues and had "published something" for that school), "and upon the foundation of my original ego has arisen a new, free life of thought. I now feel that I am a world of my own." That's worth hearing. Respect for such an autocrat!

There are also reformers with less radical demands who might be easily dispensed with, since they merely proclaim as new ideas truths that have long been known, and who shine chiefly by making erroneous additions and arbitrary changes in technical terms of the language, thereby adding to the confusion of the pedagogical train of thought. Thus we read in an educational journal:

Much weight has recently been laid by renowned educators upon the demand to give children a thoroughly modern education—that is, the children shall grasp psychologically, and not only mechanically, what they learn.

That was not only said recently, but has been recognized and demanded by every noted educator of the past, only instead of the badly fitting, though scientifically sounding, word "psychological," the term "self-actively" was used.

Again, with the word education they did not merely mean learning, although the past master of the scientific pedagogues declares to have



no idea of education without instruction, while the vulgar pedagogues entertain such an idea.

Another voice is heard saying, "In education the laws of development of the human nature must be heeded," and then this selfsame voice recommends authors for whom laws of development in human nature have actually not been in existence. However, that this is a very old and well-established principle of pedagogy scarcely needs to be said, if it was not for the fact that ignorance is most decidedly modern. Then, again, we hear some say, "Everything is to be done according to psychological laws," and others "Everything according to physiological laws." Both parties would do well to agree upon an equitable distribution, so that there might be something left for other laws. "Anthropology must be pressed into the service of dietetics and hygiene." "Anthropology and hygiene should be related to each other like cause and effect." Very well, gentlemen, only permit us to say that these are well-known commonplaces.

Often a more high-sounding catchword is sufficient as a basis for a reform. To the one a new light has arisen because he has succeeded in understanding the word evolution, a term for which we formerly used development. To another, because much is said of "dispositions" nowadays, a term for which we formerly used "faculties." "Natural" education furthermore is considered of great prominence over "education according to nature's laws;" and a pedagogical lecture, so the report says, created a sensational applause because the lecturer reproduced a few generally well-known rules of didactics under the captivating title, "philosophy of learning." With these tricks of legerdemain some reformers exhibit such satisfaction that one would think they had at least invented the differential calculus or the electric light.

From the foregoing we can plainly see that this senseless chasing after educational reforms causes among these numerous adventurers irreconcilable contradictions, and confuses ideas that should be perfectly plain. Only one more specially flagrant case of this kind may be emphasized. It is the contention concerning ethics. For "whole and half-sized Titans" ethics is not in existence any longer, it is merely a ridiculous fairy story; for speculative investigators in the realm of the absolute and other equilibrists it has merely a relative value, while for the so-called scientific pedagogues it still is the alpha and omega, the only guiding star and end in view of education. Of these theories the last-named has been put into circulation as a radical reform idea. All instruction, that is to say, also nature study, universal history, geography, the explanation of reading matter, singing, etc., shall have ethical education in view. This exaggeration and one-sidedness, according to which all matter of instruction is to be cut and applied to suit ethical reflections, naturally blunts moral feeling rather than animates it. To judge from the noise made by the cry, one would be justified in thinking that the art was found at last by which the pillars



of ethical order of the world could be deeply and unshakably embedded into the soul of every child, and hence also into the soul of the people; by which action society, state, and church are forever rescued from decay. However, the work of reform has been going on for over a generation, and yet no result, nay, not even a beginning of a result, can be seen. One may place at every proper and improper occasion strength of ethical character as the only aim in education, and enumerate from five to nineteen kinds of interests, it will ever make the impression of self-sufficient pharisaism, which exhibits before God and man a whole register of sterile virtues, and thereby crops out on the one side ethical casuistry, on the other side contempt of all morals or their reduction to mere means in the battle for existence. And thus the fight goes on, the confusion increases, and instead of the motto, "The aim of nature study is ethical education," a younger section of the party already twists it into, "The aim of ethics is recognition of nature." Perhaps they will soon find that all treatises on pedagogy might very well be replaced by a text-book on cattle breeding. One extreme seems to bring forth the other, and since every subjective visionary, despising the reign of critical thought, claims equal right and the privilege of personal liberty, all possibility of coming to an understanding concerning the theory vanishes, and with it the art of pursuing the profession of teaching.

In order to keep the trade going, despite this confusion of leading ideas, numerous carters haul new material that is to be distributed by diligent teachers among children eager to learn. There is another and very extensive species of pedagogical reform literature, namely, the one which works according to the principle "cheap and poor." Its titles are guides, manuals, materials, elaborated courses of study, preparations, model lessons, etc. Such labors have full justification when they are performed for students of normal schools by real masters of practice, but when they are compiled by bunglers, with criminal carelessness, and offered to teachers of long experience as "easy roads" they become pons asinorum, about which one is in doubt whether they derive their name from their architects or from the people who pass over them. The ready sale which such works find at present does not throw a favorable light upon the professional education of teachers, since it proves that many of its members do not get their matter from scientific sources, but obtain it in rations from bunglers' compilations, and moreover, that they constantly need methodical aid. Looking over the entire pedagogical literature of the day, a large part of it makes the impression that the opinion is prevalent that he who can read and write is called upon to act as author.

Under such circumstances we need not wonder that an anxious educator says:

I am astonished that, despite all the accusations brought forth by the reformers and despite all the reform projects advanced, no improvement is shown anywhere.

Our educators [he continues] seem to suffer in recent years of the writers' fever, for everyone who has grasped a new idea (new, of course, to him) seems to be impelled to put it on paper, in order to furnish a contribution to theoretical and practical, pathological and psychological pedagogy.

And in his holy anger over this confusion he cries out:

May our learned and pedagogical leaders give us at last a solid, unified system of education, quite immaterial whether it is according to Herbart, Diesterweg, or anyone else. Give it especially to the common school, an edifice which stands unshakable and which will hold out against the most cavilous pedagogical attacks.

To be sure, when year after year the degenerate race of our days throws mud upon the master works of its great ancestors, and again and again proclaims that it has overturned these master works; when the thoughtless public believes these boasters and allows itself to be led by the nose by every new prophet; when in the realm of the spirit anarchy becomes epidemic—then every friend of well-systematized action would be satisfied with any system, provided it could stand. But whence shall such a system come, and how can it be secured against attack in this interminable wrangling that reminds one of the Babylonian tower?

It is never well when a nation suddenly leaves the tracks of its cultural development and either throws the precious inheritance of its fathers wantonly through the window or apathetically leaves it lying in the corner. Then periods of degeneration and decay will occur, such as German history records in the tenth and eleventh, in the fourteenth and fifteenth, and again in the seventeenth century, and finally in our own days. Happy is the nation which in such periods retains a sound core of people who love to think of their ancestry, who lovingly keep the tradition of their ideals, maintain the procession forward and upward, and see to it that under more favorable circumstances sooner or later a renaissance of the whole nation may take place. Our German nation has had several of them, and it is to be hoped that it will have another in the future. The glory and greatness of our nation during the nineteenth century has been caused by powerful impulses which it received from the master works of its great thinkers and poets, either immediately or through the aid of popularization which made common property of the foundations of a high-minded mode of thinking, of a flourishing culture in all domains of the national life, and of a triumphant development of the power of self-preservation. These guiding stars of all higher aspirations have been followed by German pedagogy, partly by examining the most distinguished ancient and foreign works concerning education with newly gained standard measures and ideas, partly by self-active remodeling, as was done by Pestalozzi and his school. All great systematic pedagogues of Germany, quite immaterial whether they were Protestants, like Niemeyer and Schwarz, or Catholics, like Milde and Sailer, were one in their enthusiasm for our great thinkers and poets, in whom they had clarified and improved their own minds and had warmed and exalted their hearts.

When men of this kind promoted German pedagogy, it had a scientific character, because these men had themselves a solid scientific education, and therefore worked scientifically. But since some scientific swindlers have assumed the rôle of prophets, and collected around themselves a number of unripe youths and drilled them into bold charlatans, shameless defamers, and servile mercenaries, scientific pedagogy has become an object of mockery and scandal, of which the worst is not said when it is likened unto a traveling menagerie before which screaming parrots hang on chains in order to allure the public to enter the tent, so that they may see the antics of the trained buffoons. But when this race of pigmies has the insolence to brand the entire older science of pedagogy as trivial and vulgar, it is not aimed at Pestalozzi and his school only, but also against other educators whose systems are related to his. Likewise is it aimed at Kant, the inexorable critic of all scientific illusion; therefore against all profoundly thinking philosophers, as well as against Lessing, Goethe, Schiller, and all other great lights of the nation. It seems quite natural that the great must be pulled down into the dust so that the pigmies may rise. Formerly the rule prevailed, "judge not things of which you understand nothing," but for these modern original geniuses that rule belongs to the recipes of vulgar schoolmasters, recipes that deserve to be thrown into the pedagogical rubbish chamber. What could a genuine original reformer say if that ancient orthodox rule held good for him? To enter upon a profound study of the classic writers of our profession the younger generation has not sufficient brain or diligence, and they have an instinctive horror of that kind of study, because they suspect that under a single step of one of such giants of the spirit a whole swarm of one-day flies will be killed. May they try to make the world happy. Within the present century the German nation has performed great deeds with that spirit which is derived from "vulgar" sources. Let us hope that in future, amid new dangers, a greater race will accomplish greater things. We men advanced in years may go to rest with good consciences. *Vivant sequentes*.<sup>1</sup>

Meanwhile the new way of salvation is only in the first stage of fermentation, and therefore let us use our power in order to check by an occasional warning word the frenzy of unbridled passion for reform, and remind the profession of the inalienable foundations of a prosperous development of culture. For there is danger that the wild currents of the time, acting destructively upon thoughts and aspirations and incapable of actual creations, will contribute toward strengthening reactionary movements, which are at present already actively promoted by church and state authorities. The aim toward which reactionary

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<sup>1</sup>Dr. Friedrich Dittes, the author of the foregoing article, died May 15, 1896, in Vienna. He was for many years state school counselor in Gotha, Germany, and principal of the city normal college in Vienna, Austria. He was a most influential member of the great German Teachers' Union and exerted a powerful influence over the educational efforts of every German state.



powers and anarchistic agitation hasten has been characterized by a thoughtful observer (Tacitus) who meant it for another period when he said: "Ruere in servitium!"

Though it may seem useless to trouble one's self to oppose the current of the time, yet an honest man perceives it to be the command of duty to withstand indefatigably that which he considers foolish and destructive, and to defend steadfastly that which he considers true and good. Such a combat is not by any means hopeless. There is a sound core of men in the German nation and among German educators who will not consider servitude under the public authority, an authority that crushes all personal individual life, as a fundamental condition of general welfare and an indispensable presupposition of every science, nor will they consider the restless play of the waves of individual arbitrariness, but will insist upon freedom under the laws of reason.

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### III.—SUPPLEMENTARY AND INDUSTRIAL SCHOOLS IN GERMANY.

#### INTRODUCTION.

The article on the schools of Berlin published in the last Annual Report of this Bureau confined itself to elementary or common schools that accommodate the children of all strata of society between the ages 6 and 14. Secondary schools as well as institutions for industrial education are not mentioned. In the following an attempt is made to sketch the efforts made in Germany, and particularly in Berlin, to further prepare for the duties of life the children of the poorer strata of society, after they have completed the course prescribed for elementary schools. Berlin sets an example for the whole Empire in establishing a system of supplementary or continuation schools, as well as schools in which trades or, generally speaking, industrial pursuits are taught. These institutions are the result of the widespread conviction that preparation is necessary for every kind of work, and the frequency with which skilled labor is found in Germany bears witness to the good result of the institutions mentioned which have enlisted the attention of educators far and near.

That this kind of educational instruction becomes more and more desirable for this country may be seen from the following quotations. The Literary Digest, commenting on the scarcity of skilled workmen, recently said:

In view of the lack of employment which, even in "good times," compels thousands of workmen to lead a life of enforced idleness, and of the attempts made in several States to provide this "army of the unemployed" with work and wages, it is surprising to learn, on the authority of the Iron Age, that the increasing activity in the iron and steel trades is developing a scarcity of skilled workmen, and that the supply of fit men is steadily growing smaller. In some branches of these trades, we are



told, considerable uneasiness is now felt over the outlook for the future, and this is especially the case in those lines in which a long apprenticeship is required. Regarding the causes of this scarcity, the *Iron Age* says:

"This is one of the inevitable effects of a protracted season of dullness in a trade. Good men are the least disposed to remain unemployed for any length of time. Preferring to continue in the occupation for which they are specially fitted by reason of their training, they will perhaps await for a reasonable period the resumption of business in the establishment in which they were employed, but when day after day passes with no sign of starting they turn their attention in some other direction and accept the best chance offered. Some take such money as they have saved and embark in business for themselves. In a few months after a concern closes down its organization is scattered to the four quarters, and the same men can not possibly be collected. A large percentage of them has drifted into other trades, and either will not or can not return to their old occupations. It might be supposed that the introduction of so much labor-saving machinery in iron and steel works, which has been a conspicuous feature in recent progress, would go far toward throwing on the labor market an oversupply of workmen, but these changes after all have not been so far-reaching as the complaints of labor leaders would have us believe. Like all other movements in the direction of progress, their effect has been temporary, and the displaced workmen have evidently found other occupations. The question can be pertinently asked: If old methods were still in vogue in our great iron and steel works, how could a sufficient force of skilled workmen be obtained? It now appears to be absolutely necessary to devise further means of conducting manufacturing operations by labor-saving machinery if the supply of workmen can not in some way be augmented."

Not only are skilled workmen scarce, but it seems that there is an absolute dearth of qualified men to direct departments in manufacturing establishments. The *Iron Age* says:

Our mechanical progress appears to be developing at a rate of speed out of proportion to the conventional methods of preparing men to fill the exacting duties now required of them. Within the past few years new industries have grown at a marvelous rate, which have made heavy drafts on the ranks of those who either were or were apparently destined to become leaders in the older industries. Opportunities for more rapid advancement or for better financial returns have been seen in the electrical business, in the tin-plate trade, or in the manufacture of bicycles or some other comparatively new line. Again, the growth of old works has advanced men of ability in department work to positions of more general supervision, and vacancies have thus been created which are hard to fill. Some of our largest manufacturing companies, who from their position would appear to be well equipped with a technical and practical staff of the most ample proportions, are constantly on the lookout for men of ability and practical and scientific knowledge to fill positions of the character above indicated. Of the mediocre or unskilled we shall probably have no lack, even if a much greater condition of activity should be favoring the iron trade. The tide of immigration is again turning toward our shores, attracted by the reports of improving business. But the highest grade of workmen can not be recruited from that source. It must essentially be a home product, trained in American methods, dominated by American ideas, and gifted with American ambition.

Discussing the facts brought out by the *Iron Age*, the *New York Evening Post* declares that the situation can not be adequately explained by temporary dislocations of labor, but must be referred to more permanent and general causes. It expresses its own view as follows:

In the light of such confessions the old proverb, "There is always room at the top," might be reversed into "There is no room at the bottom;" and this, indeed, is the commercial situation to-day: There is but little room for the incompetent, the

ignorant, or the lazy in the ranks of those employed by our large corporations. We have no lack of unskilled laborers, but, unless all industrial signs fail, these must take a place in our civilization even lower than hitherto.

This demand for better knowledge and greater skill is one which is common to all trades and professions. The poorly equipped physician or lawyer is less and less in request. In conducting large enterprises, the capable manager finds his services more and more in demand and commanding higher rewards. In this compulsory advance toward greater excellence, education plays an important part. The Pennsylvania Railroad has long held to the policy of requiring the young men entering its mechanical departments to have some technical training, both in theory and practice. The technical colleges supply a part of this requirement, while not a few men, particularly in the newer sciences like applied electricity, are pioneer discoverers by right of research and study. Everywhere it is the same; the professional or business man, as well as the employee, to succeed in modern commercial strife must have all the resources which knowledge and training can give him. \* \* \* The dearth of qualified experts and the scarcity of skilled workmen in the iron and steel trades are indications at once of the new demand for more efficient laborers and of the opportunities thus offered to the deserving.

Considerations like the foregoing make it appear desirable to see how in Germany this question was faced. Authorities agreed that the excellent results of the French textile industries, and the great value of the product of French art industry, were not owing to the great innate talents of French laborers, but to their thorough and very appropriate schooling in labor. This special education "ad hoc" has been going on in France from the time of Colbert, the minister of finance during the reign of Louis XIV. Indisputable proofs of this were furnished by the various world's expositions, which opened the eyes of intelligent men to the great inadequacy of the institutions for industrial education prior to 1870, and it may be said that German industry thereupon took an upward start most gratifying in its results, since it was consistently planned and aided by the establishment of a large number of institutions for technical and industrial pursuits.

No attempt has hitherto been made to present in a concise treatise the subject of the condition and organization of Prussian continuation and industrial schools in general, and those of Berlin in particular. This deficiency, together with the fact that the limits of the different kinds of continuation schools are hard to define and not infrequently encroach upon one another, increases the difficulty of a presentation which is based upon official reports and the contributions of an Austrian specialist who himself inspected the institutions of Prussia.

Many boys in Germany leave the common school before they have attained the end it has in view. They can not express their own thoughts distinctly and intelligibly, correctly understand the expression of the thoughts of others, or give a quick and correct solution of simple arithmetical problems, either mentally or in writing. These acquirements are indispensable, however, to the mechanic as well as the farmer, to carry on his trade or follow his pursuit with advantage, and to protect himself against losses. Common schools are deterred by many circumstances from gaining their object in every detail; domestic

relations, the poverty or indifference of parents, great distance from school, sickness among children, overcrowding of the schoolroom, which prevents even excellent teachers from giving sufficient attention to each pupil, and finally, compulsory attendance, in the greater part of the State, being enforced insufficiently—all these causes contribute to the difficulties with which the elementary schools have to contend.

In Prussia, as in other German States, all these causes have for many years combined to urge the establishment of continuation or supplementary schools. Until twenty years ago little attention was paid to this subject in the old provinces of the Kingdom; less even than in those acquired in 1866. As early as 1844 the department of public instruction issued a report to all governments of provinces commenting upon the usefulness of such schools and advising the cooperation of clergy and teachers. At the end of two years a second report proved that an interest was manifested in only a few places where industrial activity necessitated a more advanced education than elementary schools afford. The absence of interest in the establishment of such schools was perhaps owing to the fact that the Government had not emphasized its encouragement by any pecuniary allowance.

Other conditions prevailed in the provinces acquired in 1866. In Nassau and Hanover industrial schools, so-called continuation schools, received appropriations from the State which Prussia transferred to the account of the department of commerce and continued to pay. After much consideration and discussion it was decided to increase this State appropriation for 1874, and turn it over to the minister of public instruction under the head of "Appropriations for industrial and continuation schools." In this way, the inequality resulting from the fact that the industrial schools of some parts of the State received assistance from the State, while the continuation schools of others received none, was removed in principle. The different official boards were advised to give the most assiduous care to existing institutions of this kind as well as to promote in a proper way the establishment of others; and, as far as possible, to aim at the establishment of supplementary schools in the industrial cities of each province. Communities are called upon to defray the cost of buildings, heat, light, and at least one-half of all other expenses not covered by actual receipts from tuition fees. An official order of 1878 compels factory owners and managers not only to permit their workmen under 18 years of age to attend continuation schools obligatory by local statute, but to allow every individual attending them the amount of time decided upon by competent authority. Consequently as journeymen, apprentices, or workmen could not be prevented from attending the optional continuation schools without the employer's incurring the risk of punishment, the department of public instruction was ever more ready to allow larger appropriations for the support of these institutions. In most cases, communities were willing to undertake the improvement of existing schools and the necessary enlargement of



classes consequent upon increased attendance only when the State voted appropriations for the expenses entailed. Concerning rural continuation schools, it must be said that the institutions are not distinguished as rural or industrial (city) schools from their situation in a country or city district, but from the arrangement of appropriate instruction for the wants of the majority of pupils. In rural schools the curriculum includes instruction in the mother tongue, arithmetic, mensuration, nature study through object lessons and where practicable by experiment, geography, native history, singing, gymnastics, and drawing. As all these studies can not be pursued at the same time, a selection is made and an interchange effected in view of the previous education of the pupil, the capacity of the teacher, special local conditions, and the number of hours per week. In every case care should be taken (so the order reads) that the school do not assume the character of a technical school, but consider as its end in view the completion and extension of common school education and the strengthening of ethical character. Instruction should be given at least during four hours a week; fewer hours are permitted only in communities where local conditions make a reduction in time imperative.

The rural continuation schools of Prussia are inconsiderable in number and are unequally distributed among the different districts. As communities, besides furnishing the buildings, as well as heat and light, until recently bore half, and at present bear at least a third of the other expenses, not covered by a rather large school tax, the number of these schools is proportionately small and varying. In many places every summer the question is decided anew whether instruction, almost everywhere limited to the winter season or to a few winter months, and not infrequently to fewer than four hours a week, shall be continued during the following winter. The decision of different communities is influenced by their temporary financial condition or the result of the harvest. In the year 1890 rural continuation schools numbered 727, with 11,144 pupils. Perhaps interest in these institutions would be greater than at present if they were given over to the minister of agriculture, public domains, and forests. This question is at present under discussion.

Industrial or city continuation schools consist of two grades of several classes each. The instruction given in the lowest grade advances the general education of pupils with special reference to their calling, and consequently practically embraces all subjects of the higher classes of advanced common schools excepting religion. The special aim of the advanced grades is the pupil's acquirement of industrial proficiency; in the selection of studies, local industrial relations are taken into consideration. In 1884 the minister of public instruction maintained, in an address to all provincial governments, that in all continuation schools which devote at most six hours a week to instruction, the course of study must be limited to language, arithmetic, and the beginning



of geometry and drawing; in other words, to the studies most important for trade and minor industries. In language, the common-school instruction is simply continued—distinct, intelligent reading, reviewing the reading matter, orthography, punctuation, and grammar. Stress is also laid on improvement in penmanship. No special instruction is given in grammar, or as a rule in penmanship; and, as it is impossible to treat history, geography, and nature studies as special branches, the German school reader offers suitable popular selections and extracts from standard works of natural sciences, whose text is to be analyzed in the reading class and appropriated by the pupil by means of verbal or short written reviews. The pupils are also instructed to compose letters, addresses, short compositions of business import, and the like. Single-entry bookkeeping is also taught in the upper grade, either in connection with language work or with arithmetic, which, like other branches, begins where the common school left off. In the lower classes attention is paid to the four fundamental principles of arithmetic, with denominate and undenominate numbers and common and decimal fractions; metric measures, weights, and German coins, and commercial calculations are practiced; the examples of proportion, interest, discount, profit and loss, etc., are practical applications of business necessities. As a knowledge of the first principles of geometry is indispensable to the practical demands of many industries, the pupil is so far advanced that he can calculate the perimeter and contents of plane figures bounded by straight lines, the contents of bodies with flat surfaces, and the sphere. Four hours out of eight per week, and where only six are given, two per week, are devoted to drawing; it is omitted only with four hours of instruction a week. In the larger continuation schools with more time, greater pecuniary resources, and better teachers at their disposal, the curriculum is more comprehensive. Instruction in mathematics is more advanced, mechanics and physics are also taught, and professional drawing is taught with a view to certain industries.

By industrial continuation schools, we understand all institutions which offer the opportunity to anyone engaged in industrial pursuits of any branch or condition whatever, whether apprentices, journeymen, or masters engaged in labor during the day, to acquire a partly general, partly professional, education, always based upon the necessity of a practical business life. This instruction is given during their leisure, i. e., on Sundays or during the evening hours of week days. As a rule, these schools are connected either with other industrial institutions, or with burgher and intermediate schools, the class rooms and appliances of which are at their disposal and whose teachers they employ. The State pays the greater part of the expenses. Since the passage of a law in 1886, purely public trade schools exist only in west Prussia and Posen, but only in the larger centers of industry. Instruction here is entirely gratuitous and obligatory for all workmen not over 18 years

of age. This law was a political measure aimed at repressing the efforts of demagogues to gain disciples among the young, and preserving and developing in children the elements of a German education begun in the common schools. In 1890 there existed altogether 159 of such trade schools, with 12,000 pupils in round numbers, while Prussia numbers 1,105 industrial continuation schools.

Besides the above mentioned there are a number of private schools which are simple industrial continuation schools established by societies, labor unions, or guilds. Barbers and hairdressers have the greatest numbers of technical schools; 58 out of the 67 exclude elementary instruction; painters have 29; tailors and blacksmiths, 24; shoemakers, 24; bakers, 21; tailors, 20; cabinetmakers and builders, each 10; masons, 6; locksmiths and butchers, each 5; paper hangers and tin-smiths, each 4; wheelwrights, 6; glaziers, saddlers, bookbinders, potters, and innkeepers, each 2; confectioners, chimney sweeps, dentists, gardeners, basket makers, and bricklayers, each 1. The necessity for technical schools does not exist in the same degree among the different trades and occupations. For barbers and hairdressers a common technical school is the shortest way and the one best calculated to save the master time and labor in perfecting the apprentice in certain branches. Customers who care to be shaved and have their hair dressed free of charge give beginners the opportunity of practicing. One person can teach the art of making wigs to many at the same time; so, too, a physician or clever surgeon can give better instruction in the services to be rendered in case of accident than most barbers. In a similar way the theory of horseshoeing is taught in these schools by experienced veterinarians. Nevertheless, as far as the education of apprentices by means of instruction is concerned, a guild can get along without establishing its own school if its members be compelled to allow their apprentices the benefits of the local industrial continuation school, and see that they attend regularly and punctually and are supplied with the necessary school requisites. In this case, the society should attend to individual complaints about absence and breach of discipline, maintain the rights of the school toward the apprentice, punish disobedience with expulsion from apprenticeship, strengthen the reputation of the school on every occasion, and endeavor to keep up a relationship with its teachers.

Certain institutions are to be regarded as a sort of medium between actual continuation and technical schools. Besides Sunday and night instruction for all kinds of industries, these transition schools, so to speak, during the day in winter instruct classes arranged for those industrial artists, painters, modelers, etc., who have comparatively little to do during the winter months, and can then attend schools. For this reason several of such institutions have received the name of industrial art schools, in which a preference is claimed for Sunday and night instruction. The conditions for admission are: A completed

common-school course, a required age, and a certain amount of practical preparatory knowledge. In general, the arrangement of studies on the one hand is planned so that instruction during the less busy season is a systematic continuation of work for such persons as are practically engaged in trades, as apprentices, journeymen, etc. On the other hand, the essential part of daily instruction is organized as a preparatory course for a regular technical school. In that case the Sunday and night school is called preparatory; the day school, technical, with classes arranged accordingly.

The trade school of Berlin is the most comprehensive and most perfectly equipped institution of its kind. It was founded in 1880 after the model of the general industrial school in Hamburg, whose director, Professor Jessen, was called to the principalship of the new institution in the capital city. The opening took place in the now demolished prince's residence in the old mint at the Werder market place. In 1886 a new building was completed. The State appropriates 20,000 marks, the city 90,000 marks a year for its maintenance. An advanced Sunday and night school, attended in the winter of 1889-90 by 2,074 apprentices and journeymen, forms the preparatory department of this institution. To this are added two day classes for cabinetmakers and painters and the technical school for mechanics. The Sunday and night school is divided according to separate courses of instruction. Drawing, as the most essential branch, is taught four hours a week, and lessons from two to four hours long are given to classes, so that pupils can be occupied eight hours a week. The lessons embrace demonstrative geometry, mechanics, mathematics, physics, chemistry, electro-technology, arithmetic, and bookkeeping.

On the whole no less than 121 courses of four and two hours a week and engaging 28 teachers were maintained during the winter of 1889-90. Elementary and professional drawing are taught, and modeling and painting practiced. How a large attendance and a sufficient individual representation of a multiplicity of industries complicate the management of such a school is seen from the course in professional drawing divided according to trades; in 1889-90 it comprised not fewer than 35 courses of four hours weekly for 13 different trades. For joiners and turners, 3 courses; for tinsmiths and locksmiths, 4; for machinists, 1; for instrument makers and opticians, 3; for watchmakers, 1; for jewelers and engravers, 1; for beltmakers, 1; for masons and carpenters, 4; for bricklayers, 1; for sculptors, 2; for painters, 8; for upholsterers, 4; for lithographers, 3; in each 30 to 40 pupils were instructed. The method of instruction in all drawing lessons rests preeminently on a strictly consistent application of life study, whereby very favorable results are obtained. A special, large building of model arrangement, with electric light for night instruction, abundant collections of accessories and appliances, and all that pertains to a complete school equipment, together with an excellent corps of teachers, are at the disposal of the institution.



The Austrian specialist who inspected this school proposes that the trade school be brought into a suitable organic connection with all the other industrial continuation schools of Berlin. If the central institution were intrusted with the direction or supervision of all the elementary continuation schools, it would tend to make all serve a uniform purpose and facilitate their development. The higher educational aim of the central trade school, and the more thorough preparation other institutions would then give, suggest this reform. Much more valuable individual accomplishments might be effected by such a union.

A technical school for mechanical engineers is found in connection with the trade school in Berlin. Its particular purpose is the education of foremen and managers of mechanical industries, and especially of expert mechanics and electricians. The studies comprise a half year's course, which can be extended to a year, and are taught during the forenoon only.

The trade school of Berlin, in which 42 teachers were employed in 1890, besides a director and assistant director, has repeatedly established winter courses for the higher education of drawing teachers in industrial continuation schools. It exerts a marked influence on the improvement of industrial instruction, not only in the capital, but also in many other cities, as Magdeburg and Hanover, where such schools have been enlarged, reorganized, or newly established, entirely in imitation of the model of the one in Berlin.

By foremen's schools we understand the lower industrial schools with day instruction, arranged for a whole group of industries. Their curriculum and methods are adapted to a general grade, which need not rank above a good common school, and they admit only practically educated pupils. Their aim is to offer young and old laborers the opportunities of gaining in the shortest possible time such technical knowledge and ability as can not be acquired in practice or in an industrial continuation school, but is indispensable with the present demands upon a self-dependent manager or foreman in industrial pursuits.

Certain branches of industrial pursuits taken collectively are distinctly separate from others, but may be classed into a greater or smaller number of industrial subdivisions. By being apparently related through their common intellectual foundation, they are naturally combined in one group. There are a number of such branches for whose perfect practice a certain amount of development in art and a knowledge of mathematics, mechanics, and chemistry is generally presupposed. To such groups belong the building trades, the mechanic and technological branches, the chemical industry, and the industrial arts.

Schools for such branches are sparingly represented in Prussia. The most frequent are builders' schools, which are entirely self-supporting institutions. The institution in Berlin, numbering 1,289 pupils (in 1891, 1,192), was formerly connected with the trade school. Its graduates



who pass the final examination, based upon the order issued in 1882 by royal commission, enjoy certain advantages in their occupations. Their diploma, in pursuance of the decision passed by the society of German builders in the year 1888, is accepted in place of the theoretical part of the test examination required by the laws of the society. All builders' unions are further advised in case of special vacancies to consider the graduates of builders' schools, to whom, moreover, the Government positions of road and station masters of railroads are open. Since 1891 the so-called Samaritan course on "first assistance in cases of accident" is delivered in these institutions. A six weeks' course of instruction given by a physician consists of two successive hours a week, of which one is devoted to a lecture, the other to practical exercises. It is intended to introduce the same instruction into technical schools for machinists and the larger weaving schools.

The various textile industries of Berlin are numerous represented. The number of active, self-dependent master weavers in the capital city was, in 1888, estimated at 3,000, with 2,000 journeymen and 500 apprentices; the number of handlooms in operation amounted to 5,000, while the automatic looms, attended mostly by girls under a foreman, numbered 2,000. To these must be added 1,200 ordinary looms with 300 masters and 500 journeymen and apprentices; and, finally, several hundred passementerie and 100 chenille looms. Between 4,000 and 5,000 workmen are supposed to be engaged in passementerie handwork. The United Loom Societies established a weavers' school, which was controlled by the State, in 1883, and supported by appropriations from even other manufacturers' societies, both local and in other provinces and states. As the rooms utilized for instruction, limited to Sunday, were by no means sufficient, the city in 1888 decided upon rebuilding, having the assurance that the state government in future would supply half of the current expenses not covered by actual receipts and equip the institution with the necessary new machines, looms, and other perquisites. The building was completed in 1890 at a cost of 180,000 marks, including the cost of the site. It offered the possibility of enlarging Sunday and night classes so that they could accommodate 450 weavers and passementerers. The new building also afforded opportunity for the establishment of a day weaving school of an upper and a lower grade, each with a one year's course. Sunday and night instruction is free to all apprentices and journeymen resident or at work in Berlin; the trustees have granted the same privileges to those belonging to nonresident societies. Others pay 24 marks annually; day pupils 100 marks the first year and 300 marks the second. The accounts of 1890-91 close with an expenditure of 49,060 marks, of which 14,000 were raised from tuition fees; the remainder was advanced by the state and city, each paying 17,500 marks. The institution is fully equipped with looms and apparatus, for the purchase of which the State, for 1890-91, appropriated an extra sum of 53,400 marks.

As has been stated, societies can establish and control industrial trade schools, provided they observe certain conditions; and the city authorities have the right to allow these institutions the use of city buildings and defray the expense of heat and light. Berlin has 8 of such guild schools, 1 each for printers, painters, tailors, wig makers and hairdressers, stone masons and bookbinders, and 2 for bakers. The other 12 technical schools, 1 each for masons and carpenters, cabinet-makers, saddlers, painters, chimney sweeps, barbers and hairdressers, wheelwrights, glaziers, shoemakers, blacksmiths, upholsterers, and basket braiders, have been established by communities, and are supported by guilds. The State contributes to the support of 8 of them. Several of these institutions sensibly confine themselves to the pursuit of purely technical knowledge and acquirements; pupils, therefore, are referred to continuation schools for their general industrial education. The majority, however, devote most of their time to language, arithmetic, drawing, and reading. The latter can hardly be called purely technical schools, and their pupils derive little advantage for business. This reflection applies preeminently, perhaps exclusively, to guild schools.

The Berlin art school, besides preparing pupils for the art academy and educating drawing teachers for higher educational institutions, has for its purpose the instruction of industrial artists in drawing, painting, and modeling, and therefore serves as a preparatory school for the technical class of the royal industrial art museum. The industrial art school connected with the last-mentioned educational institution omits from its night courses not only all preparatory branches, as elementary, free-hand, and geometrical drawing, drawing from casts, modeling, etc., but also all studies taught by lectures, as anatomy and projection. The school is accommodated in the side halls of the museum and comprises classes for the making of furniture, apparatus, etc., for modeling, chasing, engraving, copperplating, etching, artistic cabinetmaking, decorative and figure painting.

Male and female pupils are admitted, and number over 500.

In connection with the royal manufactory of porcelain in Berlin there exists a school for painters and modelers, the perceptible extension and improvement of which, since 1886, corresponds to the progress in pictorial decoration and the plastic formation of the products of the factory. A separate hall is set aside for painters, in which advanced students are regularly instructed during the whole forenoon of week days and for a few hours on Sunday. The classes are attended not only by journeymen, but, as far as the orders for work justify it, by many painters of advanced years, numbering on the whole over 40. If painters have devoted a long time exclusively to porcelain, they are obliged to occupy themselves for several weeks exclusively with ornamental and nature studies, for which the gardens and greenhouses of the factory supply the plants and blossoms. Journeymen are admitted

only when they show decided talent. Strange to say, private factories, until now, have expressed no desire to have their employed painters and modelers educated at the state institution; they are probably of the opinion that the royal porcelain factory in educating such persons is consulting its own needs only. Owing to the lack of room it is at present impossible to admit modelers; but painters' apprentices, even in smaller numbers, are not refused. Perhaps the difference in the manner of decorating existing between the royal factory and private factories is the reason why none of the latter has attempted to make use of the State school as a technical school for porcelain painters.

The chief administration of the Prussian industrial school system has in the course of the last decade repeatedly suffered changes and removal by having been transferred from the department of commerce and industry to that of public instruction and back again. At present the administration is divided. The higher industrial educational institutions, the Industrial Art Museum and its affiliated school in Berlin, the Art School of Berlin and the Industrial Art School of Breslau, are under the direction of the minister of instruction. All other industrial schools are under the minister of commerce and industry.

Finally, Berlin possesses two business colleges, the first of which was founded in 1885 by private merchants and a union of merchants' guilds. In comparison with other German cities, Berlin was backward in this respect. For fifteen years the resident city of the Hohenzollern had been the capital of the Empire, the center of politics, and the leader of German trade; but neither the State nor the city, neither the corporation of merchants nor a single one of the great societies of merchants, had thought of providing Berlin with one of such important—in fact, indispensable—institutions, while more than a hundred already existed in the large, small, and even most insignificant cities of the Kingdom. After much contention and many difficulties, there now exist two such institutions, for whose accommodation the city has allowed the use of two secondary school buildings. The tuition fee amounts to 36 marks per annum and opens all departments to the pupils attending. Instruction is given four nights a week, from 8 to 10 o'clock. Every pupil has the right to select his own course of study and belongs to both institutions at the same time, as the hours of instruction do not conflict. The faculty consists of 30 members, the number of pupils averages 1,300, and the curriculum includes commercial geography, exchange and business rules. The State appropriates 800 marks annually for both schools. At the meeting of the Prussian Diet on the 25th of February, 1894, Minister von Berlepch explained, during the discussion of the appropriation bill for the "industrial school system," that the Government deemed the promotion of business colleges indispensable. This assertion was provoked by the accounts of different business departments, which nearly all justly complain of the deficient education of young merchants.



Unfortunately, the Government has perceptibly curtailed the allowance for continuation schools, thereby verifying the assertion of Beningsen that there seems to be deplorably little money left for educational demands. The Government advocates the introduction of compulsory attendance, which is already enforced in all the larger German States. If we include the city continuation schools and all other similar institutions, even those not supported by the state, besides the different technical schools, over 17,000 persons, or about 40 per cent of the number under obligation to attend continuation schools, attended industrial classes during the winter of 1891. The Government recognizes the indisputable necessity of a normal school for teachers of continuation schools, so that they may receive more thorough instruction than the present short course of drawing offers. It considers the introduction of a regular supervision of industrial continuation schools, which is at present almost entirely wanting, as not less urgent or important.

The memorial of Councilor Lüders on technical education in Prussia concludes with the following words:

The administrative authorities of industrial education feel sure of receiving the appropriations necessary for the present needs and further development of the continuation schools.

Continuation schools are the only places where, outside of the workshop, hundreds of thousands acquire technical knowledge and proficiency, and next to the church they are the only places where thousands, and particularly all who do not enter the army after leaving the common school, are receiving ethical education, are counseled to practice civil virtue, and trained to order and discipline. If instruction, as it must be, is given in the proper spirit, pupils are not only materially benefited, but they are morally strengthened and awakened to the consciousness that man does not live by bread alone. Whoever is less affected by the ethical than the economical value of industrial continuation schools and industrial education will, nevertheless, recognize the necessity of the powerful and immediate claim expressed by an intelligent Frenchman, who says: "The best instructed industry is at present the strongest." Observation convinces one that the working people depend in a great measure upon industrial education, and that many skilled laborers, designers, masters, and manufacturers have gained their proficiency in technical schools; though the instruction may not in every case have been directly for the benefit of each man's occupation, it has proved to be so indirectly.

Nothing will be more convincing of the great care taken in Germany to aid industry than a presentation of the courses of study pursued in the Saxon technical schools at Chemnitz. They consist of (1) a high school for trade, (2) a builders' school, (3) a school for master workmen, (4) a school for millers, (5) for dyers, (6) for soap makers, and (7) a school of mechanical drawing.

The courses following here are reported by United States Consul



John A. Barnes at Chemnitz, Saxony, Germany, and first appeared in No. 517, volume 43, of Consular Reports, issued by the State Department. They are here reproduced to corroborate the statements made in the foregoing article.

For the school year 1891-92 there were enrolled 1,169 students in the seven departments of the Chemnitz school, as follows:

| School.                           | Full course. | Partial course. | Total. |
|-----------------------------------|--------------|-----------------|--------|
| High trades school.....           | 339          | 14              | 353    |
| Builders' school.....             | 140          | .....           | 140    |
| School for master workmen.....    | 304          | 71              | 375    |
| School for millers.....           | 17           | .....           | 17     |
| School for dyers.....             | 18           | .....           | 18     |
| School for soap makers.....       | 10           | .....           | 10     |
| School of mechanical drawing..... | 256          | .....           | 256    |
| Total.....                        | 1,084        | 85              | 1,169  |

Of the 1,084 students in this institution, 694 were natives of Saxony, 310 of other parts of Germany, and 80 foreigners, of whom 6 were Americans. The tuition of 63 students, amounting to 3,360 marks, was remitted during the year through various scholarships endowed by individuals and aid received from the Saxon Government. The expenditures were as follows: For the increasing of the collections in mineralogy, chemistry, etc., 4,073.55 marks (\$969.61); for the library, 6,870.60 marks (\$1,635); for school supplies, 36.59 marks (\$8.80).

The library contains 17,070 bound volumes, 1,743 atlases, 4,727 pamphlets, 453 maps, and 60,278 patent manuscripts. During the year 1891 there were loaned 7,450 volumes, as follows: To 47 teachers, 1,923; to 1,006 students, 5,013; to others, 2,960; also, 995 patent records were consulted.

#### 1. ROYAL HIGHER TRADES SCHOOL.

This school offers to those intending to devote themselves to one of the departments given below the means of obtaining, through carefully planned instruction and suitable practical application, the necessary scientific preparation appropriate for each.

A.—Mechanical technology; for those intending to become manufacturers, superintendents (Directoren), or mechanical experts (Techniker) in the different departments of mechanical technology (machine building, spinning and weaving, etc.).

B.—Chemical technology; for intending manufacturers, superintendents, experts, etc., in the different chemical trades and manufacturing departments.

C.—Building; for architects. The instruction in this department is not parallel with that given in the building school, from which it differs in having a broader scope and the plan of instruction differently arranged.

D.—Electrical technology; for manufacturers, engineers, and experts in electric apparatus.

Each of these departments has three courses, of which the first requires three terms (Halbjahre) and the second two. The third course in the mechanical, chemical, and electrical departments requires two terms and in the building department only one. In studies which are the same in all four departments instruction is given to all the students together when practicable. Instruction begins in the first course of Departments A, B, and E in the first week after Easter; in the first of the building department, as well as the second and third courses in all three divisions, the first week in October.

The students in the first course in the building department have, after their first term, a summer term of practical work in the business. Entrance into this school, except in special cases, must be at the beginning of the course. Candidates must be at least 15 years old, must be vaccinated, must possess the necessary preliminary knowledge, and, in cases of minors, must have the consent of the father or guardian. In the case of those entering the first course of the building department, at least half a year must have been spent in practical building work. For scholars in Department A from one to two years' experience in a machine shop of small or medium size is recommended, and for scholars in Division E, such a course in a machine shop or in electrical works.

At the beginning of the first course students are admitted without examination who have certificates showing that they have completed the course in a Gymnasium or Real-Gymnasium for entrance into the Obersekunda or in a Real-Schule and have a mark of over 3 (*genügend*) in German and mathematics. Those are also admitted without examinations who have successfully completed a year or more in the Obersekunda of a Gymnasium or a Real-Gymnasium. All those candidates for admission who have not already passed their preliminary scientific examinations for voluntary military service, or refer to it only before the examining committee, are subject to examination. To these examinations candidates can also be admitted who have completed their course for the Obersekunda or in the Real-Schule, but whose mark was not above 3 (*genügend*) in German and mathematics, or who have not entered a higher class in the Real-Gymnasium or Gymnasium than Untersekunda.

For admission, these must also bring certificates showing the mark attained in each case. On account of lack of space, those who have attained a higher practical experience may be advanced in proportion upon their entrance. The entrance examinations include German, mathematics, geography, and French. The requirements are: In German, accuracy in spelling and in elementary grammar and ability to prepare compositions; in mathematics, knowledge of algebra and simple equations and plane geometry; in geography, knowledge of the most essential parts of physical and political geography; in French, principal rules of construction and syntax.

For entrance into a higher course after it is begun, the additional knowledge of what has already been gone over by the class is required. Those who enter the second or third term of the first course or a higher one in the building division must have had two terms of practical experience. For special examinations for entrance in higher course or for other cause, an extra charge of 10 marks (\$2.38) is made. The admission is final (*endgiltig*) when the applicant has fully complied with these conditions. It is conditional (*bedingt*) if the examination shows an incomplete preparation, but a prospect of its being made up. The conditional entrance becomes final if no further cause of delay appears on the mark attained at the end of the first term.

Application for admission is to be made to the board of directors, either orally or in writing, for the Easter term, not later than Palm Sunday; for the fall term, not later than September 15. The condition as given above must be complied with by bringing the officially sealed or stamped certificate of birth, the certificate of vaccination, and all the school testimonials, together with the written consent of the father or guardian. Those who have had practical experience must present testimonials as to all their work and their progress, and must state which department they wish to enter and whether they have already had one term (Department C, second term).

All these certificates and testimonials must be presented at least a week before the examinations. All students are alike subject to the rules of the school, and in relation to attendance, behavior, and preparation of required work are subject to the oversight of the board of directors and the instructors.

At Michaelmas and Easter a report of the standing and deportment of each student is sent to parents or guardians. Only those students who have attained in all branches at least the mark 3 are allowed to advance to the next higher course; nor are students allowed to go on to the work of any term unless the same mark (3—

genügend) has been attained for the work of the previous term. Any student who has taken the work of the same course or term twice without attaining the necessary average must leave the school. Any student leaving the school before the completion of the full course may have a certificate showing progress made and the length of time spent in the school.

Students who have completed the third course, having a mark of at least "passed" (genügend) in all the studies of the last term and having an average mark of "fairly good" (ziemlich gut) for the last three terms, receive a diploma (Absolutorial-Zeugnis); but, if they have fulfilled only the first and second conditions, they receive only a testimonial (Abgangszeugnis) giving a summary of the several term marks. Those who have received a diploma and who wish to continue their studies in a higher school, instead of devoting themselves to immediate practice, are admitted without examination as undergraduates (Studirende), as distinguished from listeners (Hörern) or special students (Hospitanten), to the Royal Technical High School at Dresden, and the Royal Bergakademie, and will also be admitted to all examinations in the Dresden High School, except that for the higher public service in the building department.

Persons who are of age may be allowed by the director, with the consent of the teachers concerned, to attend particular lectures and practical work. They are considered Hospitanten, are not subject to the rules of the school, and may obtain a certificate showing that they have received such instructions, and for how long. This permission may be revoked at any time for sufficient cause.

The tuition fee is 60 marks (\$14.28) per term for Germans and 120 marks (\$28.56) for others, payable in advance at Easter and Michaelmas. German Hospitanten and students in single studies pay 5 marks (\$1.19) for each hour of instruction per week up to 60 marks (\$14.28) per twelve or more hours, and others pay twice as much. Tuition once paid will under no circumstances be returned. Indigent and worthy students who are natives of Saxony and have attended the school at least one term may have the tuition remitted. The institute possesses a number of fixed scholarships for assisting students. Applicants for remission of tuition or scholarships must present in writing to the board of directors (under the rule of the royal minister of the interior of 1850) suitable testimonials as to their need. The expenses for books, writing and drawing materials, etc., average 40 to 50 marks (\$9.52 to \$11.90) a year.

The directors refer students to families where they may obtain board and lodging, for which the expense varies from 600 to 1,000 marks (\$142.28 to \$238) a year.

The course of study is as follows:

#### FIRST COURSE.

##### FIRST TERM.

*For all the departments together, separated into divisions according to qualification (Departments A, B, and E in summer and C in winter).*

(1) German language (three hours per week). Preparation of written compositions and oral theses; reading and explaining middle high German and the later classic fiction (continued in second and third terms, Nos. 11 and 26); logic.

(2) Free-hand drawing (four hours per week). Drawing from charts and models; practice in india ink; study of colors.

(3) Geometrie and projection drawing (four hours per week). Constructions in planes preliminary to geometrie and technical drawing; elements of projection; representation of bodies bounded by plane surfaces and spherical bodies in different positions through perpendicular projection; elementary sketching practice; plane cross sections of bodies; simple relief drawing; practice in india ink. (Continued in second term, No. 18.)

(4) Mathematics (eight hours per week). Review in detail of the divisions of elementary mathematics required for admission and continuation of same; plane



geometry; arithmetic and algebra, including theory of potentials, with positive integral exponents; equations of the first degree with one unknown quantity, with applications.

(5) Chemistry (four hours per week). Inorganic chemistry, introduction; theory of atoms; chemical combination; reference to nonmetals and their more important compounds.

*For Departments A, B, and E, divided according to qualification.*

(6) Physics (four hours per week). Introduction; mechanics of solids.

(7) Building and architectural drawing (four hours per week). Study of materials; first part of stone construction; walls, their construction and penetration; the vaulted arch; architectural drawing from assigned subjects.

*For Department C.*

(8) Physics (four hours per week). Introduction; general mechanics; mechanics of solids; hydrostatics.

(9) Architectural drawing (four hours per week). Drawing parts of buildings, moldings, etc., with illustrations; copying of plans.

(10) Building materials (two hours per week).

#### SECOND (WINTER) TERM.

*For all departments, divided according to qualification.*

(11) German language (three hours per week). Continuation of No. 1; rhetoric.

(12) Mathematics (eight hours per week). Solution of problems in plane geometry by geometric and algebraic analysis; goniometry and plane trigonometry potentials; roots; logarithms; equations of the second degree with one unknown quantity, with applications.

(13) Chemistry (four hours per week). Inorganic chemistry; continuation of No. 5; reference to more important metals and their compounds.

*For Departments A, B, and E, divided as above.*

(14) Geometrical drawing (six hours). Stereometric drawing; supplementary instruction on perpendicular projection of points, lines, angular figures, and circles on a plane of projection; drawing figures on two planes of projection; shifting and removing; axis of projection; straight lines through given points; planes through given point and straight line; intersection of planes and straight line; introduction of new planes of projection; differences between points and straight lines; angles between planes and straight lines; shadows of points, lines, and plane figures. (Continued in third term, No. 31.)

(15) Physics (four hours per week). Hydrostatics; hydrodynamics; aërostatics; aërodynamics; wave theory; acoustics.

(16) Machine drawing and sketching (two hours per week). Drawing of machine parts and simple power and working machines from models and from sketches taken by the students themselves.

(17) Building and architectural drawing (four hours per week). Continuation of No. 7; wood construction; roofs, both supported by pillars and free, with special regard to factory building; massive ceilings; chimneys in buildings; steam flues; stairs; architectural drawing as in No. 7, as well as sketching practice on high buildings.

(18) Projection drawing (two hours per week). Continuation of No. 3.

(19) Technical calculations (one hour per week). Exercises on superficial pressure, pistons, valves, cross sections of belts and ropes; exercises on velocity, adjustment of wheels, pumps, tubes, exercise on mechanical work, working of power machines, transmission by ropes and belts; winding appliances. (Continued in third term, No. 33.)



*For Department C.*

(20) Geometrical drawing (four hours per week). Auxilliary instructions in stereometric drawing; orthogonal projection; drawing of plane figures on one plane of projection; affinity; graphic determination of straight lines and planes, with exercises on mutual relations of these figures; affinity of projections of plane systems; transition from one projection system to another; changing of objects already drawn.

(21) Physics (four hours per week). Hydrodynamics; aërostatics; aërodynamics; wave theory; acoustics; transmission of light; photometry; reflection of light.

(22) Free-hand drawing (four hours per week). Continuation of No. 2.

(23) Building and architectural drawing (four hours per week). Plans of agricultural buildings and small dwelling houses.

(24) Building construction (four hours per week). Laying foundations—the site, its improvement, removing water; foundations of pillars; sunk shafts; caissons; gratings; stone construction; dressing and working of stone; construction of walls and pillars of quarry stone, hewn stone, and brick; drains; apertures in walls and the necessary frames, etc.; stone ceilings and vaults; necessary tools and scaffolding.

*For Department E, together with No. 50.*

(25) Physics (four hours per week in last weeks of term). Frictional and induced electricity.

## THIRD (SUMMER) TERM.

*For all departments, divided according to qualification.*

(26) German language (three hours). Continuation of Nos. 1 and 11; poetry.

(27) Mathematics (eight hours). Trigonometrical exercises; solid geometry (stereometry); equations of the first and second degree with more than one unknown quantity, with applications; continued fractions and indeterminate equations; exponential equations; progressions; calculating interest and rents.

*For Departments A, B, and E.*

(28) Chemistry (for Departments A and E two hours per week, for B four hours). Organic chemistry; consideration of most important organic compounds.

(29) Physics (four hours). Optics; transmission of light; photometry; reflection; refraction; spectrum analysis and the most important points in interference of light; polarization and double refraction.

(30) Building and agricultural drawing (four hours). Continuation of No. 17; iron construction for high buildings; proper fitting up of buildings, especially workshops; their ventilation; architectural drawing as in No. 17; small designs; factory fittings.

*For Departments A and E.*

(31) Geometrical drawings (four hours). Projection of bodies with plane surfaces; plane sections of bodies of three dimensions; shadows proper and shading of bodies of three dimensions; shadow of one such body on another; drawing curved lines, especially circles and spirals; shading of a circular body; elements of perspective.

(32) Machine drawing (four hours). Continuation of No. 16; theory of construction of toothed wheels.

(33) Technical calculations (one hour). Continuation of No. 19; calculation of axes and wheels.

*For Department A.*

(34) Surveying (half a day per week). Practical exercises in field surveying; description, trial, and use of simple surveying apparatus; marking off and measuring straight lines; erection and dropping of perpendicular; surveying single plats and boundaries with the chain and goniometer; platting from field notes; computa-

tion of area; elementary work with surveyor's table; surveying of plats, either with free or obstructed "sights;" description, trial, and use of the leveling instrument; surveying and drawing of profiles and horizontal curves.

*For Department B.*

(35) Chemistry (two hours). Beginning of instruction in the sections of organic chemistry necessary for those in the chemical department, in addition to the course of all departments together.

(36) Practical chemical work in the laboratory (eight hours). Exercises in qualitative analysis and performing of easy chemical operations.

*For Department C.*

(37) Physics (four hours). Refraction; spectrum analysis; most important points in interference and polarization; theory of heat; thermometers; expansion by heat.

(38) Free-hand drawing (two hours). Drawing and shading from the larger building ornamentation.

(39) Building and architectural drawing (six hours). Continuation of No. 23; fitting up of buildings.

(40) Building construction (six hours). Wood construction—wood joining, construction of wooden walls, wood ceilings, girders, pillars, roof construction; iron construction in broad sense.

(a) Construction in which iron is used as an auxiliary to wood or stone; anchors, props, shoes, etc.

(b) Iron construction proper; stays; pillars; beam and roof construction.

(41) Geometrical drawing (four hours). Derivation of distances and magnitude of angles from projection; computation of roof surfaces; elements of shading and perspective; bodies with plain surfaces and their combination; shadows and shading.

(42) Chemical technology (two hours). Chalk; mortar; air-slaked mortar; water-slaked mortar; plaster.

*For Department E, together with No. 74.*

(43) Physics (four hours). Voltaic electricity; electrolysis; magnetism and electro-magnetism.

ELECTIVE STUDIES OF FIRST COURSE.

(44) Geography (three hours in first and second terms). European countries and peoples; civilized peoples outside of Europe.

(45) History (three hours in third term). Brief survey of antiquity and the Middle Ages

(46) Commercial arithmetic (for Departments A and B, two hours per week in first term; for Department C, two hours in third term). Rebates and provisions; interest and discount; explanation of Leipzig gold and exchange; reports and computation according to same; simple problems in exchange, and exchange discount; computation of interest in account current; bonds and stocks; trade accounts (invoice, etc.).

(47) French (three hours per week throughout course). Composition; word order; concordance; cases and prepositions; use of tenses, indicative and conjunctive, infinitive and participle. The following text-books are used: "Kurzgefasste systematische Grammatik der französischen Sprache" and "Methodisches Lese- und Übungsbuch," by Plötz. Reading of standard selections from "La jeune France littéraire," by J. Forrest. (Continued in second and third courses.)

(48) English (three hours per week during all three terms). Grammar on basis of the manual "Vollständiger Lehrgang der Englischen Sprache," by Plate. As reading exercises there are used during the first two terms the reader which accompanies the manual, and in the third term some easy classic.

## SECOND COURSE.

## FIRST (WINTER) TERM.

*For all departments together, separated into divisions according to qualification.*

(49) German language and history of literature (two hours). Exercises in speaking and history of older literature. (Continued in No. 73.)

*For Departments A, B, and E.*

(50) Physics (four hours). Theory of heat; thermometrics; expansion; change of state of aggregation; radiation of heat; calorimetrics; mechanical equivalent of heat; frictional and induced electricity. (Continued in second term, No. 74.)

*For Departments A and E.*

(51) Mathematics (eight hours). Algebraic analysis; first part of higher algebra and of differential and integral calculus; analytic geometry (plane). (Continued in second term, No. 76.)

(52) Geometrical drawing (four hours). Axonometric and oblique projection; curved surfaces in general; cylinders, cones, etc.; cutting of curved surfaces by planes and straight lines; unrolling surface of cylinders and cones; intersection of curved surfaces; shading of hollow bodies; shade of one round body upon another; regular spiral surfaces, especially screw spirals and their applications. (Continued in second term, No. 80.)

(53) Mechanics (four hours). Theory of equilibrium and motion of solid, liquid, and gaseous bodies, with as much attention to detail as the application later to machines and machine building demands, and, so far as practicable, with application of higher mathematics; first part, combination and decomposition of forces; force in a plane; conditions of equilibrium; pairs of forces; forces in space; center of parallel forces; center of gravity; stability; Guldin's rule; friction; stiffness of cords; theory of elasticity and rigidity. (Continued in second term, No. 77.)

(54) Machine drawing (six hours). Designing machine parts. (Continued in No. 78.)

*For Departments A and B.*

(55) Chemical technology (two hours).. Water—its source and its circulation in nature, its retention and its changes, application in domestic economy and the trades, its fitness for use; filters and conduits; heating and fuel; lighting and illuminating materials. (Continued in No. 75.)

*For Department A.*

(56) Surveying (two hours). Lectures concluding the theoretical part of the instruction begun in the first course, and, so far as practicable, practice in platting; illustration of terrain situation, etc.

*For Department B.*

(57) Technological chemistry (two hours). The whole department of inorganic chemistry reviewed, in order to fix and widen the chemical knowledge and judgment of the student, and its application in the most important trades given and an illustration of the most important chemical manufactures (sulphuric acid, soda, chloride of lime, etc.); also the principal inorganic natural products, so far as they are not considered in chemical technology and metallurgy, are taken up in their proper places. (Continued in No. 81.)

(58) Analytic chemistry (two hours). Qualitative analysis reviewed and completed; quantitative analysis touched upon.

(59) Practical chemical work in the laboratory (sixteen hours). Practice in qualitative and quantitative analysis; illustration and examination of different preparations. (Continued in No. 82.)

(60) Mineralogy (four hours). Mineralogical characteristics, with special attention to crystallography; description of the more important minerals; sketch of the precious stones.

(61) Mechanics (two hours). Theory of equilibrium and the movement of solid, liquid, and gaseous bodies, with special attention to the chapters most important to chemical technique, under exclusive application of elementary mathematics. (Continued in No. 83.)

(62) Machine drawing (two hours). Drawing of machine parts and simple machines from models and from sketches taken by the students themselves. (Continued in No. 84.)

*For Department C.*

(63) Physics (two hours). Theory of heat continued; state of aggregation finished; elation of the vapors; radiation of heat; calorimetrics; mechanical equivalent of heat; electricity; frictional and induced electricity. (Continued in No. 91.)

(64) Mathematics (six hours). Elements of differential and integral calculus; analytical geometry (straight lines, circles, and conic sections); tangents and normal plane curves; rectification; quadrature; cubature; evolution and involution. (Continued in No. 85.)

(65) Geometrical drawing (four hours). Perspective drawings of different plane objects with definite boundaries (stairs, walls, etc.) and the proper shading; curved lines and surfaces in general; special cone, cylinder, and rotating surfaces; intersection of curved surfaces with planes and with each other; conic sections; shading of revolving surfaces. The method of projection used is ordinarily the rectangular, but in many cases (cross, arches, etc.) the perspective.

(66) Mechanics of building construction and graphical statics (two hours). Conditions of equilibrium of forces on solid bodies; polygon of forces; polygon of cords; reciprocal action of forces; truss and street frames; theory of rigidity; simple strength of materials (bending with stroke or pressure, breaking), calculation of pillars and doubly supported columns. (Continued in No. 86.)

(67) Building construction (four hours). Continuation of No. 40; stonecutting; interior construction; stone, wood, and iron stairs; floors (paved, plastered, or of wood); protecting and decorating inside and outside walls; interior wood construction (wainscoting and doors, wooden and iron window frames, including the trimmings); ceilings in wood and stucco; coatings of all kinds; roof coverings (wood, straw, tile, slate, metal, and paper roofs).

(68) Designing (eight hours). Making of plans, according to a given outline, of dwelling houses of all kinds fitted up in various ways, schools, churches, railway stations, factories, etc.; preparation of specifications and working drawings in different ways; preparing plans for renovating and remodeling old buildings. (Continued in Nos. 88 and 119.)

(69) Free-hand drawing (four hours). Drawing and sketching extended to the larger ornamentation of different styles of building. Advanced students begin figure drawing.

(70) Theory of pillar arrangement and styles (two hours). Arrangement of pillars explained by lectures and illustrated in detail by selected examples; cornice forms of the Renaissance.

*For Department E.*

(71) General electro-technique (three hours). Brief review of theory of electricity and magnetism; setting up, operation, application, and inspection of dynamos; electric lighting and transmission of power; accumulators. (Also elective for third course.)



(72) Telegraphy and telephony (two hours). Detailed treatment of house telegraph and telephone plants; the most important of the different telegraphs and telephones. (Continued in No. 92.)

SECOND (SUMMER) TERM.

*For all departments.*

(73) German language and history of literature (two hours). Continuation of No. 49.

*For Departments A and B.*

(74) Physics (two hours). Operation of discharge currents; electrolysis; magnetism and electro-magnetism.

(75) Chemical technology (two hours). Continuation of No. 53.

(76) Mathematics (eight hours). Continuation of No. 51.

(77) Mechanics (five hours). Continuation of No. 53; movement of mathematical points; velocity; acceleration; motion of projectiles; movement of plane systems; mechanical work; mechanical power; movement of material points; living forces; principle of work; parallel motion of one material system; revolving motion; inertia; centrifugal force; inclined motion of one material system; principle of d'Alembert; percussion of solid bodies; elements of graphical statics with application to the calculation of machine parts and bridge girders.

(78) Machine drawing (six hours). Continuation of No. 54.

(79) Machine building (four hours). Construction of machine parts; construction of screws; screw, rivet, and wedge jointing; framework, etc; tooth wheels and pulleys.

*For Department A.*

(80) Geometrical drawing (two hours). Continuation of No. 52.

*For Department B.*

(81) Technical chemistry (two hours). Continuation of No. 57.

(82) Practical chemical work in the laboratory (sixteen hours). Continuation of No. 59.

(83) Mechanics (four hours). Continuation of No. 61.

(84) Machine drawing (four hours). Continuation of No. 62.

*For Department C.*

(85) Mathematics (six hours). Continuation of No. 64.

(86) Mechanics of building construction and graphical statics (four hours). Continuation of No. 66; elastic line; calculation and graphical determination of spliced beams; ceilings; iron and wooden roof frames; stability of walls; graphical determination of arches, pillars, buttresses; chimneys; retaining walls.

(87) History of architecture (two hours). Consideration of the development of building methods among the civilized nations influential in our time and the most important monuments of the builder's art.

(88) Designing (ten hours). Elaboration of a dwelling house according to a given plan of construction; small collaborative designs; excursions.

(89) Free-hand drawing (four hours). At the beginning of the term and on rainy days, landscape drawing from studies; later, in good weather, from nature; for advanced students, in colors.

(90) Surveying (half a day per week). Practice like No. 34.

(91) Physics (two hours). Voltaic electricity; electrolysis; magnetism; electro-magnetism.

*For Department E.*

(92) Telegraphy and telephony (two hours). Continuation of No. 72.

(93) Special electro-technique (two hours). Theoretical treatment of electric and magnetic phenomena; instruments and methods of measuring electricity and magnetism. (Continued in first term of third course, No. 122.)

(94) Practical work in the laboratory (eight hours). Measuring strength of currents, resistance and tension of conductors; gauging of measuring instruments; photometry; electro-static and magnetic measurements. (Continued in third course, No. 123.)

## ELECTIVE STUDIES IN SECOND COURSE.

(95) History (three hours per week in both terms). History of modern times.

(96) Bookkeeping and correspondence (two hours in first term). Theoretical part of bookkeeping; explanation of different methods of bookkeeping; object, arrangement, and use of ledger and other books; practical part, business routine extending over a period of three months both by single and double entry; correspondence; business papers.

(97) French (three hours in both terms). Instruction continued in grammar; syntax of the articles, adverbs, and numerals; pronouns; conjunctions.

(98) English (three hours in both terms). Instruction continued in grammar, second part of Plate; dictation; reading of some easy classic work.

## THIRD COURSE.

## FIRST (WINTER) TERM.

*For all departments together, separated into divisions according to qualifications.*

(99) German language and history of literature (two hours). Practice in speaking; history of the later literature from Opitz to Lessing, and general characteristics of further development down to the present.

*For Departments A, B, and E together, separated into divisions according to qualifications.*

(100) Political economy (two hours). Elements of political economy by Roscher; statement of essential principles of trade, commerce, and labor relations; finance. (Continued in second term, No. 125.)

(101) Metallurgy (two hours). Discussion of source and characteristics of the most important metals, especially iron.

(102) Mechanical technology (four hours). Characteristics of the technically important metals and alloys; molds and castings; tools and machines for working metal; characteristics of wood; tools and machines for working it.

*For Departments A and E.*

(103) Mathematics (four hours). Second part of higher algebra and differential and integral calculus; elements of the methods of least squares; spherical trigonometry; analytical geometry of space. (Continued in second term, No. 127.)

(104) Mechanics (two hours). Continuation of instruction in mechanics in second course; hydrostatics; pressure of fluids in rest; stability of floating bodies; hydromechanics; hydraulic press; discharge of water from vessels; water pipes; motion of water in rivers and canals; reservoirs; equilibrium and motion of gaseous bodies.

(105) Machine building (four hours). Construction of machine parts (tenons and shafts, couplings, cords and chains, bars, levers, windlasses and windlass bars, core wheels, guides, brakes, springs, pistons, valves, cocks, and sluices); machines for moving weights; pumps. (Continued in second term, No. 128.)

(106) Machine theory (four hours). Living motors; steam engines; counterpoises and fly wheels; regulators; elements of mechanical theory of heat; steam heat; steam boilers; vertical water wheels and turbines; measurement of moving forces; blowing machines. (Continued in second term, No. 129.)

*For Department A.*

(107) Machine construction (twelve hours). Plans of machine parts and machines. (Continued in second term, No. 130.)

*For Department B.*

(108) Physics (two hours). Illustration and practical experience of the methods used in physical determination; determination of specific gravity of bodies in all three states of aggregation, noting correction for temperature; polarization of sugar; determination of specific heat and other physical operations performed by chemical means.

(109) Technical chemistry (two hours). Consideration of manufacture of inorganic commercial products continued and organic begun. (Continued in second term, No. 131.)

(110) Practical chemical work in the laboratory (sixteen hours). As in second course, but in work selected with regard to the future vocation of the student. (Continued in second term, No. 132.)

(111) Machine drawing (two hours). Continuation of instruction in second course. (Continued in summer term, No. 133.)

(112) Instruction in machinery (four hours). Most important machine elements for strength and for transmission, alteration, and regulation of motion; motors in common use; the most important working machines, with special regard to the requirements of chemical technique. (Continued in summer term, No. 134.)

*For Department C.*

(113) History of molding and painting (one hour).

(114) Building laws (one hour). Consultation and explanation of police regulations on building (Saxon building ordinance in law of February 27, 1869); local building ordinances, regulations concerning fire insurance, etc.

(115) Heating and ventilation (two hours). Essentials of heating, fuels in general, fire space, heat space, chimneys, local heating, determination of heating surface, central heating; air, its contamination, dampness, velocity; influence of outer air on ventilating appliances; natural and artificial ventilation; dimensions of ventilating flues.

(116) Free-hand drawing (four hours). Designs of ornaments for special objects or rooms or of entire ornamental objects, making use of pattern sheets and models.

(117) Interior decoration (four hours). Designs of wall, floor, and ceiling decorations in wood, stucco, etc., based on the Renaissance and later styles of building; in conclusion of instruction in designing, No. 88.

(118) Cost estimates (two hours). Finding average price for mason and carpenter work, etc.; preparing estimates of cost for a given plan; preparing approximate estimates; estimating value of buildings; formalities necessary in building contracts, etc.

(119) Designing (fourteen hours). Continuation of No. 88, with application of perspective.

(120) Machine building (two hours). Lifting apparatus; raising by hand and by steam power; hand rams and steam rams; pumps; steam boilers; stationary engines; locomotives; water wheels and turbines.

(121) Street construction and waterworks (two hours). Study of construction of the city streets, lengthwise and cross profile; elements of earth construction, drainage, tools and machines, different methods of street construction, study of reservoir construction, strengthening of banks; foundations; waterworks dam building; water supply of city, etc. The instruction is limited to consideration of general fundamental principles, without going into special details.

*For Department E.*

(122) Special electro-technique (four hours). Continuation of No. 93; continuous-current machines and accumulators; alternating-current machines and transformers; electric lighting and transmission of power; the most important points of electro-chemistry.

(123) Practical work in the laboratory (eight hours). Continuation of No. 94; measurements of electric apparatus; testing lightning rods; measurement of continuous-current machines and plants; working measurements; provisional installation of plants, using the materials at hand and practice in their use.

## SECOND (SUMMER) TERM.

*For Departments A, B, and E, divided as above.*

(124) German language and history of literature (two hours). Practice in speaking; special study of the history of literature from Lessing on.

(125) Political economy (four hours). Continuation of No. 100.

*For Departments A and B together.*

(126) Mechanical technology (four hours). Peculiarities of fibrous materials, especially cotton, flax, wool, and silk; their spinning and weaving; paper manufacturing.

*For Departments A and E.*

(127) Mathematics (four hours). Continuation of No. 103.

(128) Machine building (four hours). Continuation of No. 105.

(129) Machine theory (four hours). Continuation of No. 106.

*For Department A.*

(130) Machine construction (twelve hours). Continuation of No. 107.

*For Department B.*

(131) Technical chemistry (four hours). Continuation of No. 109.

(132) Practical chemical work in the laboratory (sixteen hours). Continuation of No. 110.

(133) Machine drawing (four hours). Continuation of No. 111.

(134) Instruction in machinery (two hours). Continuation of No. 112.

*For Department E.*

(135) Designing electric apparatus (four hours). Designs and calculations for machines and simple apparatus; fitting and working of electric centers.

(136) Practical work in the laboratory (sixteen hours). Continuation of No. 123.

## ELECTIVE STUDIES IN THIRD COURSE.

(137) French (two hours). Syntactical exercises from Plötz; dictation on history of French literature; conversation.

(138) English (two hours). Continuation and finishing of the grammar and practice in translating German compositions into English; reading some classic author; dictation; conversation.

(139) First aid for the injured (double hours in summer term). Skeleton; muscles, nerves, and principal organs of the human body; circulation of the blood; breathing; contusions, wounds, bleeding, broken bones, dislocations, sprains; saving from burning and from drowning; treatment in cases of drowning, freezing, and suffocation, lightning stroke, poisoning, partial burning; transportation of accident cases; practice in using folded and unfolded triangular cloths, roll bandages, and splints in stopping bleeding; artificial breathing as a means of restoring those apparently dead; removing the wounded.

To students in the third course and in the second term of the second course of the building department is given, also, opportunity to avail themselves of the instruction in the following departments of the Werkmeisterschule:

Mill building (two hours in winter term). Characteristic of different systems of cutting mills; their return for power expended; fitting of oil mills with special



regard to hydraulic presses and pumps; milling processes; the most important of the preparatory and auxiliary machines used in flour making.

Waterworks construction (two hours in summer term). Obtaining and storing water; cisterns; improvement of springs; sinking ordinary and artesian wells; purifying river water; water pipes; reservoirs; characteristics of different systems of pumps; calculation of their capacity and their necessary use in mechanical work.

Machine-tool building (two hours in summer and winter term). Description and calculation of machine tools for working metal and wood, especially lathes, boring and cutting machines, planing and grooving machines, screw-cutting machines; illustration of working of these tools; carving and edge tools; use of power; ascertaining motion of principal and supplementary, direct, and transmitted motion; reference to constructive forms and peculiarities of machine tools; study of details.

Brewery mechanics (two hours in summer term). General view of preparation of beer from grain; materials used in making beer, their qualities so far as important to the brewer, and the machines and buildings used in their preparation and preservation; preparation of malt; cleaning and sorting the grain; soaking; setting on the malt floor; mechanical setting apparatus; malt kilns and their management in preparing different kinds of malt; marks and qualities of a good malt; its cleaning and preservation; brewing with wort and the machinery employed; malt presses, mash machines, clarifying apparatus; brewing pans and the necessary mason work; pump and piping; hop strainers; hop presses; boiling-house arrangement; cooling apparatus.

Distillery machines (two hours in winter term). Alcohol and the characteristics most important to the understanding of the distilling processes; general view of the manufacture of spirits and the materials used; potatoes and their characteristics; producing of the mash machines for washing; the older machines for boiling, cleaning, and mashing potatoes; description, working, and use of the newer mashing apparatus; preparation of distilling malt and its difference from brewing malt; thinning and cooling of mash; cooling apparatus; description of fermentation and preparation of yeast and the space and apparatus used; building, working, and use of the distillery apparatus.

Paper manufacture (two hours in summer term). Historical; range of modern papers; kinds; raw materials and auxiliary materials.

Half-material manufacture. Cutters, dusters, boilers, engines, defibrers, refiners, sorters, soda process for production of straw and esparto materials; soda sulphate and sulphite process for wood pulp, with the proper machinery; bleaching with chlorine gas and chloride of lime; the proper machines and fittings; whole-material manufacture; engines, refiners, crushing mills, new German apparatus (circular stamp work); mixing, sizing, and dyeing; engine mixing; application of colors; hand paper machines; air drying; long-sieve and round-sieve paper machines; dampening, glazing, cutting, and rolling with the proper machinery; sorting, numbering, and packing; packing presses.

Fire extinguishing (two hours in winter term). Natural and artificial extinguishing agents; water presses and hydrants; the outfit, wagon, pails, hose, engines, and their auxiliaries, ladders, etc.; demolishing tools; the service; giving the alarm; lighting; tactics for large, medium, and small fires; rescue apparatus; rescue bags, live-saving nets, lines, etc.

General electro-technique, exclusive of telegraph (three hours in winter term). Brief review of instruction in electricity and magnetism; fittings, manner of working, use, and trial of dynamo-electric machines; electric lighting and transmission of power; accumulators.

Spinning (four hours in winter term). Peculiarities of the different spun fibers and the consequent variations in the preparative and spinning process; individual machines, considering the principal points of the less easily understood mechanism; calculation of loss of power and capacity (using gauge bar); elementary theory of the flyer.

Weaving (four hours in summer term). Classification of woven goods; the simple handloom and its parts; the beginning and finishing process; coupers, dobby or treadle machines; Jacquard machines; figuring and lancing; double-woven goods; velvet, chenille, preparation for weaving, spooling, shearing, dressing, the mark, etc.; mechanical preparation with the necessary machinery; mechanical looms, arrangement, frames, motive mechanism, the mechanism for weaving of presses, guards, and harness; safety appliances; ketten and cloth beam regulations; treadle machines; drop-box lathes.

Mechanics of finishing processes (two hours in summer term). Description of the apparatus and machinery necessary in the dyeing and finishing process in weaving, especially washing, drying, wringing, strengthening, steaming, sprinkling, smoothing and polishing; fulling, roughing, shearing, etc., in different kinds of weaving.

Hosiery knitting (two hours in summer and winter term). Hand knitting, meshing of plain goods, necessary tools; kinds of hand frames; frame numbers and yarn numbers; meshing of plain and ribbed goods in hand frames; knit goods varieties (plain and ribbed); mechanical knitting (plain knitters, round and flat); ribbed knitters; knitting machines; shaping and finishing knit goods.

Finally, the students in the advanced classes of the building department may be allowed to attend the "selected lectures on particular chapters of political economy" assigned for the *Werkmeisterschule*, and also the instruction in modeling included in the course of the *Gewerbzeichenschule* (school of mechanical drawing).

The course in the *Gewerbschule* includes many branches also taken up in the other schools of the *Staatslehranstalten*, but the instruction is adapted to a different class of students, being more general and theoretical and broader in its scope, since the other schools take only so much of any science as applies to the special branch of technique studied in that department. The purpose of the schools of dyeing, building, etc., is to fit the students for skilled work in the trade, while the *Gewerbschule* aims to produce experts in the various departments of technology. There were 337 students enrolled in 1891, of whom 163 were natives of Saxony, 139 natives of other parts of Germany, and 35 foreigners, divided as follows: Austria, 5; Italy, 2; England, 2; Russia, 5; Switzerland, 1; the Netherlands, 2; Roumania, 3; America, 5.

## 2. BUILDERS' SCHOOL.

The course of study in this school is as follows:

### FIRST (WINTER) TERM.

(1) General building instruction (four hours). Consideration of the various parts and requisites of buildings in general; plans; arrangement and fittings of buildings of different designs (dwellings, agricultural, and manufacturing buildings); foundations.

(2) Elements of theory of form and architectural drawing (six hours). Joints and cornices, windows and doors; pillar arrangements, etc.; drawing practice, with lectures interspersed. (Continued in second term.)

(3) Free-hand drawing (six hours). Training eye and hand to comprehend and reproduce surface and relief ornamentation in clear outline from drawings and plaster models; practice in sketching and drawing from memory; drawing from plaster models with different shadings; designing ornaments. (Continued in second, third, and fourth terms.)

(4) Arithmetic (five hours). The four ground principles, with general and special application; potentials with integral exponents; extraction of square and cube roots; equations of first degree with one and with more than one unknown quantity.

(5) Geometry (five hours). The most important sections are congruents; equality and likeness of plane figures bounded by straight lines; theory of circles; determination of contents of plane surfaces; the most important sections of solid geometry, especially finding superficial area and contents of bodies.

(6) Theory of projection in connection with practice (eight hours). General fundamental principles of projection; projection of lines, surfaces, and bodies; cutting and penetration of bodies; shading; axonometric projection; practice in India ink.

(7) German language (four hours). Most important points in theory of words and composition; practice in oral and written expression, with special attention to spelling.

#### SECOND TERM.

(8) Stone construction (four hours). Materials; building with brick and hewn stone; stone construction of halls, etc., and their appurtenances (walls, pillars, window and door scaffolding, stone cornices, supports, etc.); stone-arch constructions, tunnels, etc., including simple stone bridges; stonecutting; stairs of hewn stone, brick and cement; stone and plaster floors. (Continued in third term.)

(9) Wood construction (four hours). Materials; simple wood construction; floors, paneled walls (timbered and ceiled), ceilings, etc.; rafters, upper and lower beams, branch sleepers, grate sleepers, truss and strut frames, etc.; form and construction of roofs, including roof coverings; stairs, doors and windows; building and arch scaffoldings. (Continued in third term.)

(10) Building laws (one hour). Reference to and explanation of police building regulations; local building ordinances; regulations concerning fire precautions.

(11) Elements of theory of form and architectural drawing (four hours). Like first term, No. 2.

(12) Designing (five hours). Beginning of designing through completion of given sketches. Designs of agricultural and manufacturing buildings, common dwelling houses, etc.; preparation of working drawings. (Continued in third and fourth terms.)

(13) Free-hand drawing (four hours). Like first term.

(14) Perspective (two hours). General ground principles of perspective.

(15) Mathematics (four hours). Review of equations of the first degree; quadratic equations; exercises.

(16) Physics (fourteen hours). General characteristics and states of aggregation of bodies, with special reference to liquid and gaseous; most important points in theory of sound, light, electricity, and magnetism; some of the important chemical experiments. (Continued in third term.)

(17) German language (four hours). Continuation of exercises; business papers and introduction to preparation of more extended compositions.

#### THIRD TERM.

(18) Stone construction (three hours). Like second term.

(19) Wood construction (three hours). Like second term.

(20) Designing (twelve hours). Like second term.

(21) Firing, heating, and ventilating apparatus (three hours). Firing apparatus in general; heating apparatus, cooking stoves, etc.; firing apparatus (for boilers); the different systems of central heating and ventilation.

(22) Free-hand drawing (four hours). Like first term.

(23) Mathematics (four hours). Trigonometry; exercises.

(24) Physics (two hours). Like second term.

(25) Mechanics (four hours). General principles; motion, force, mass, work; exercises; combination and decomposition of forces; center of gravity; stability; strength; the most important building machines; principal points of hydrostatics. (Continued in fourth term.)

(26) Field surveying, leveling, and drawing plans (three hours). Surveying building sites and small groups of buildings with chain and transit; leveling; drawing ground plans.

(27) German language (two hours). Continuation of exercises; brief survey of principal characteristics of German literature.



## FOURTH TERM.

(28) Iron construction (four hours). Materials; joining of iron; constructional parts; single and compound beams; construction of ceilings and their beams; pillars and supports; roofs, also in conjunction with wood; stairs.

(29) Designing for building construction (three hours).

(30) Building estimates (three hours). Contents and arrangement of estimates; preparing working estimates for materials and work; exercises in estimating.

(31) History of building (two hours). Development of the different styles of building and illustration of their principal and peculiar forms of architecture and ornament.

(32) Designing (sixteen hours). Like second term.

(33) Free-hand drawing (four hours). Like first term.

(34) Perspective (two hours). Exercises in perspective drawing.

(35) Mechanics (four hours). Like third term.

(36) Bookkeeping (two hours). Simple bookkeeping, with special reference to the requirements of the building trade.

Students in fourth term are admitted to the instruction in fire extinguishing of the *Werkmeisterschule*.

## 3. SCHOOL FOR MASTER WORKMEN.

This school has three departments—A, C, and D—of which A and C (mechanical technique) offer to those intending to become machine builders, masters, and superintendents in machine factories, spinning or weaving establishments, or paper factories, and to millwrights, well contractors, etc., an opportunity to acquire the necessary theoretical preparation; and department D (electro-technique) offers the same to overseers of electric plants.

The course in mechanical technique (Departments A and C) covers three terms (*Halbjahre*). Department D has, besides, a fourth term devoted exclusively to electro-technique. In this comparatively brief space of time the students can acquire only the knowledge and practice essential for their special department of work. It is not the purpose of this school to give a comprehensive scientific education.

Departments A and C begin at Easter and at Michaelmas of each year; Department D begins its special instruction only at Michaelmas. Entrance to this school is subject to the following conditions: Candidates must be at least 17 years old and vaccinated, must have the necessary preparation, and must have at least three years' experience in their trade; minors must have the consent of parents or guardians.

For intending machine builders, work in an ordinary blacksmith's shop or in the drawing department of a machine shop will be counted, but it is urgently recommended that the preparatory work be in a machine shop of middle size. For electricians practice in a mechanical workshop, in telegraph building, or electro-technical factory will serve as preparation.

Those entering must at least readily write, compose in simple German, and be able to perform easy calculations, both with common and decimal fractions. In these branches an examination is held shortly before the beginning of the term. For entrance into a higher class is required, in addition, knowledge and practice equivalent to that gained by the rest of the students in that class. For such entrance a further examination is required, which is free if taken at the time of the other examinations, but costs 5 marks if taken after the term has begun.

Application for admission must be made to the board of directors of the *Technische Staatslehranstalten*, orally or in writing, for the Easter term not later than Palm Sunday; for the Michaelmas term not later than September 15. At least a week before the examinations for entrance the following must be presented: The officially sealed or stamped birth certificate, vaccination certificate, school certifi-



ates, and certificates of all practical experience. Minors must have the written permission of parents or guardians.

All students are alike subject to the laws of the school and are responsible to the director for deportment and for preparation of assigned work. At Easter and Michaelmas a report of standing and deportment is sent to parents or guardians. A mark of less than 3 excludes from passing to the next higher class. Any student failing twice to pass must leave the school. Students leaving before the completion of the course receive a testimonial showing how long they have been members of the school, their deportment and their progress.

The tuition fee is 30 marks for each term, payable in advance at Easter and Michaelmas. Tuition paid is under no circumstances returned. Indigent and worthy students who have attended the school at least one term may, in special cases, be aided through scholarships for that purpose, and the tuition may also be remitted. Applicants for remission of tuition or aid must produce testimonials of their need to the board of directors before the beginning of the term. The expense for books, writing and drawing materials, etc., is about 30 marks a year. The directors will advise the students of families where they can obtain board and lodging, of which the necessary cost is from 600 to 800 marks a year.

Students at the Werkmeisterschule are as a rule excused from military service during the course upon application to the proper authorities. With this school are united the Färberschule and the Fachschule für Seifensieder. The courses in these latter schools begin only at Michaelmas of each year.

#### COURSE OF STUDY.

##### FIRST TERM.

*For Departments A and D—Mechanical and electrical technique (winter).*

(1) Arithmetic (six hours). The four ground principles, with ordinary numbers and letters; common and decimal fractions; proportion; theory of potentials and roots; solving equations of the first degree with one and with more than one unknown quantity, and quadratic equations with one unknown quantity, with applications.

(2) Geometry (six hours). The most important general characteristics of figures bounded by straight lines; theory of congruents; equality and resemblance; calculation of surfaces; principal characteristic of circles and of allied angular figures; calculation of circumference and area of a circle and of its dimensions; the most important propositions of solid geometry, with special attention to calculation of all the contents of bodies.

(3) Physics (four hours). General characteristics of bodies; equilibrium of liquids and gaseous bodies; heat; elements of chemistry, with special reference to burning processes. (Continued in second term, No. 14.)

(4) Geometrical drawing and projection (eight hours). Construction of plane figures bounded by straight and curved lines; perpendicular projection of points, lines, surfaces, and bodies; exercises; revolution; unrolling; sections; penetration; shading; practice in india ink.

(5) Free-hand drawing (four hours). Training the eye and hand to comprehend and reproduce simple bodies and ornaments in clear outline, partly from drawings and partly from plaster models. (Continued in No. 18.)

(6) German language (four hours). Exercise of the students in the oral and written expression of ideas by composition and extempore speaking, with following discussion; the most important parts of grammar.

*For Department C—Mechanical technique (summer).*

(7-12) Same as Nos. 1-6.

## SECOND TERM.

*For Departments A and D—Mechanical and electrical technique (summer).*

(13) Mathematics and mechanics (eight hours). Logarithms; elements of plane trigonometry; theory of curves as far as it is necessary to the understanding of mechanics; theory of equilibrium and movement of material points and rigid bodies, frictional resistance, rigidity—all treated in an elementary way and limited to the points especially necessary in the technical application, paying special attention to graphical methods.

(14) Physics (two hours). Continued from first term, No. 3.

(15) Machine theory (two hours). Machine elements and organism, in the treatment of which geometrical knowledge or the application of theoretical mechanics is required only to a limited degree; bases; couplings; cogs; belts; engine driving.

(16) Mechanical technology (four hours). Working of metals, particularly of iron, and of wood.

(17) Machine drawing (eight hours). Preparation of drawings, especially of working drawings, of simple machine parts, bases, coupling, wheels, belt shears, pistons, packing boxes, windlasses, connecting heads, crossheads, valves, etc.

(18) Free-hand drawing (four hours). Continuation of No. 5.

(19) German language (four hours). Practice, particularly in business papers, writings, easy negotiations, etc.; practice in extempore speaking, together with taking notes; the most important sections of the history of German literature.

(20) Field and water surveying (four hours). Description, trial, and application of the simplest surveying instruments; surveying real estate; calculation of areas; leveling of points, lines, and surfaces; water surveying through gauging floats and overflow.

*For Department D—Electrical technique (summer term).*

(21) Electricity (two hours). Elements of frictional electricity; galvanism; magnetism and electro-magnetism.

*For Department C—Mechanical technique (winter term).*

(22-28) Same as Nos. 13-19.

## THIRD TERM.

*For Departments A and D—Mechanical and electrical technique (winter).*

(29) Mechanics (four hours). Continuation of theory of rigidity; theory of rigidity and motion of liquid and gaseous bodies, so far as necessary for the instruction in machine theory.

(30) Machine theory (six hours). Continuation of the like instruction in second term; screws; rivets; pins; shafts; belt and rope sheaves; wheels; also lifting tools and power machines. (All instruction elementary.)

(31) Machine drawing (eight hours). Designing machine parts and simple machines; preparing of the proper working drawings. (Reference is had so far as possible to the future work of the student.)

(32) Free-hand drawing (four hours). Making drawings, with shading, from plaster models.

(33) German language (two hours).

(34) Business bookkeeping (two hours). Exercises in preparation of the necessary books, so that they form a complete set and show at once the profit or loss; instruction in the most necessary characteristics of exchange, with reference to the requirements of general commercial law; the German exchange ordinances and the credit ordinance of the German Empire.

(35) Building, including drawing (four hours). Building; wall construction; inclosing of rooms; vaulted arches and their construction; door and window open-

ings; stone ceiling; simple arches; chimneys; wood construction (beams, sleepers, etc., their supports); roofs with and without supporting timbers, with truss and strut frames, etc.; roof covering; stairs; building site; foundations; drawings connected with the subject, including small buildings, from given plans and original.

*For Department D—Electrical technique (winter).*

(36) General electro-technique (three hours). Brief review of theory of electricity and magnetism; fitting up, manner of working, application, and inspection of dynamo-electric machines; electric lighting and transmission of power; accumulators.

(37) Telegraphy and telephony (two hours). Detailed treatment of house telegraph and telephone plants; most important of the various telegraphs and telephones. (Continued in fourth term, No 46.)

*For Department C—Mechanical technique (summer).*

(38-44) Same as Nos. 29-35.

(45) Same as No. 20.

#### FOURTH TERM.

*For Department D—Electrical technique (summer).*

(46) Telegraphy and telephony (two hours). Continuation of No. 37.

(47) Special electro-technique (four hours). Most important of electro-technical measuring instruments and methods; continuous-current machines; outfit and working of simple electric-lighting plants.

(48) Practical work in the laboratory (sixteen hours). Measuring of strength of currents; resistance and tension of conductors; testing and gauging technical measuring instruments; testing electro-technical conduction apparatus; regulating arc lamps; simple measurements on dynamos and accumulators and on such powerful-current plants as are available.

Students in second, third, and fourth terms are also given the same opportunity for instruction in special branches as in the third course of the Gewerbschule.

#### 4. SCHOOL FOR MILLERS.

The course of study in this school is as follows:

##### FIRST TERM.

(1) Milling in general (four hours). Practical part—the systems of measures, weights, and standards in the other countries most important to the trade; estimates of price according to quality of grain; statistics of granaries and grain trade. Technical part (continued as mill-building in second term, No. 10)—systems of grinding, with their special arrangement of machinery and transportation; transporting, lifting, and weighing appliances of mills; effectiveness and expenditure of power of different milling apparatus; machines for cleaning the grain, etc.; fanning, hulling and brush machines, etc.

(2) History of milling products in nature (two hours). Treatment of the elements and chemical treatment most important to plant life; analysis of grains, microscopic examination of their structure; flour, dough-making and baking processes; determination of gluten and flour inspection.

(3) Mathematics and mechanics (eight hours). Logarithms; elements of plane trigonometry; theory of curves so far as necessary to understanding of mechanics; theory of equilibrium and motion of material points and of rigid bodies; frictional resistance; strength. (Treatment elementary and limited by the demand of the practical application.)

(4) Physics (four hours). Theory of heat.

(5) Machine theory. (Same as Werkmeisterschule, No. 9.)

(6) Machine drawing (eight hours). Preparation of working drawings of simple transporting and milling machine parts.

(7) Free-hand drawing (two hours).

(8) German language (four hours). Exercise in preparation of business papers; technological descriptions, etc.; exercise in extempore speaking, with taking notes; most important sections of history of German literature.

(9) Field and water surveying (four hours). Handling of the simplest surveying instruments for laying out mill pits, mill ponds, etc.; leveling; water surveying through gauges, floats, etc.

#### SECOND TERM.

(10) Mill building (four hours). Pulverizing machines, cylinders, swing mills, millstones; setting up, adjusting, and cutting millstones; grinding and rifling machines for cylinders; cylinder sieves, etc.; machines for cleaning the meal, mixing and packing flour; transporting apparatus, with reference to the motor and grinding system.

(11) Mechanics (four hours). Same as *Werkmeisterschule*, No. 15; also weirs and mill pits.

(12) Machine theory (six hours). Continuation of No. 5; valves; shafts; toothed wheels; water wheels; turbines; steam boilers; steam engines.

(13) Machine drawing (eight hours). Drawing from examples and plans of different milling machinery and tools; designing water wheels; plans of mill apparatus from drawings.

(14) Free-hand drawing (two hours). Continuation of No. 7; making and shading drawings from plaster models.

(15) Building (one hour). Window openings, stone ceilings, simple arches; chimneys, wood joining, sleepers, beams, etc., and their supports; roofs, with their supports; roof construction with truss and strut frames, etc.; stairs; building site; foundation.

(16) Building drawings (one hour). Drawing of small buildings from given designs and original.

(17) German language (two hours). Continuation of No. 8.

(18) Business bookkeeping (two hours). Points most important to the students. Students are also admitted to certain departments of the *Werkmeisterschule*.

#### 5. SCHOOL FOR DYERS.

The following is the course of study in this school:

##### FIRST (WINTER) TERM.

(1) Chemistry (twelve hours). Fundamental principles; most important chemical elements and their compounds, with special reference to those important for practical and laboratory work; introduction to organic chemistry; glance at the more important carbon compounds.

(2) Physics (four hours). General characteristics of bodies; different states of aggregation; most important points in theory of equilibrium and of movement of solid, liquid, and gaseous bodies.

(3) Arithmetic (six hours). The four ground principles, with ordinary numbers and letters; common and decimal fractions; proportion; theory of potentials and roots; solving of equations of first degree with one unknown quantity.

(4) Geometry (two hours). Most important points of plane geometry; calculation of surface and contents.

(5) Free-hand drawing (four hours). Training the eye and hand to comprehend and reproduce objects of simple form; training the taste for decoration and color combination. (Continued in No. 11.)

(6) German language (four hours). Exercises in oral and written expression of ideas by compositions and extempore speaking, with criticism; most important points of the language.



## SECOND (SUMMER) TERM.

(7) Chemical technology (four hours). Water, its circulation in nature (rain, spring, and river water), hard and soft water, purifying for industrial use, etc.; materials used in dyeing and soap making, as salt, soda, potash, and caustic alkalies, acids, etc.; heating and lighting materials; firing apparatus.

(8) Technical chemistry (two hours). Fats; soaps; maceration; thickening and finishing processes. (Continued in third term.)

(9) Practical chemical work in the laboratory (sixteen hours). Exercises in qualitative analysis; illustrations of preparations; carrying out easy quantitative determinations; determination of value of soda, potash, etc. .

(10) Physics (two hours). Theory of heat; optics.

(11) Free-hand drawing (two hours). Continuation of No. 5.

(12) German language (four hours). Preparation of business papers, technological description, etc.; exercise in extempore speaking and taking notes; most important sections of history of German literature.

## THIRD TERM.

(13) Business bookkeeping (two hours). Practice in preparation of the necessary business books, so that they shall form a complete set and show at a glance the profit and loss; necessary instruction in peculiarities of exchange, with reference to the decision of the general commercial laws and the exchange.

(14) Dye-school mechanics of finishing process (two hours). Same as in Gewerbschule.

(15) Technical chemistry (six hours). Continuation of No. 8; characteristics; illustration of and elements of application of dyestuffs and dyeing materials; preparation of fibers and tissues for dyeing and pressing; bleaching of cotton, linen, jute, wool, and silk; drying and finishing wool and silk; application of the dyestuffs; vat dyeing; blue print; Turkey-red dyeing; alizarine and aniline black prints, etc.; machines used in bleaching, dyeing, printing, and finishing; preparation of dyed and printed wares; theory of dyeing; preparing and working of dyeing, washing, and fulling water.

(16) Practical chemical work in the laboratory (twenty hours). Continuation of No. 9; qualitative and quantitative analysis; testing and determining the value of soaps, fats, etc.; practical work to familiarize the students with the composition of the most important fats and soaps, and the other materials used in manufacture of pomades, etc., in conclusion of No. 14.

(17) Free-hand drawing (two hours). Continuation of No. 11.

(18) German language (two hours). Continuation of No. 12.

## ADDITIONAL ADVANTAGES.

Students are allowed to avail themselves of the instruction in the following branches in the course of the Werkmeisterschule (see course of study):

(19) Waterworks construction (two hours in summer term).

(20) Electrical theory (two hours).

(21) Weaving (four hours).

(22) Spinning (four hours in winter term).

(23) Fire extinguishing (two hours).

(24) Knitting (two hours, summer and winter term).

(25) Electro-technique (three hours in winter term).

(26) Political economy (two hours). Selected lectures in summer term.

## 6. SOAP-MAKING SCHOOL.

The course of study in this school is as follows:

## FIRST TERM.

(1-6) Same as in the dye school (preceding).

## SECOND TERM.

(7) Same as in dye school.

(8) Technical chemistry, part 1 (two hours). Organic compounds and materials most important in making of pomades, etc., and in soap making, especially fats and their ingredients; dyes and scents used in soap making.

(9-13) Same as in dye school.

## THIRD TERM.

(14) Technical chemistry, part 1 (six hours). Continuation of No. 8; use of fats, especially soap making; obtaining and purifying the fats; their characteristics; apparatus and machinery necessary in making household and toilet soaps; different kinds of soap; scents for toilet soap; candle making; inspection of fats and soaps.

(15-17) Same as 16-18 in dye school.

All students in the second and third terms are allowed to avail themselves of the instruction in the following subjects in the course of the *Werkmeisterschule*:

(18) Waterworks construction (two hours in summer term).

(19) Electrical theory (two hours).

(20) Electro-technique (three hours in winter term).

(21) Fire extinguishing (two hours).

(22) Selected lectures on special chapters of political economy (two hours in summer term).

## 7. MECHANICAL DRAWING SCHOOL.

The course of study in this school is as follows:

(1) Free-hand drawing (four hours per week).

(2) Geometrical drawing (four hours per week).

(3) Projection (four hours per week).

(4) Modeling (four hours per week).

## WEAVING SCHOOL.

This school, as its name implies, is devoted exclusively to weaving in all its branches. It was founded in 1857. In 1886 there were 61 students, of whom 39 were from Germany (16 from Saxony), 13 from Austria, 1 from Italy, 6 from Russia, 1 from Denmark, and 1 from the United States. In 1891 there were 60 students, of whom 43 were from Germany (27 from Saxony), 9 from Austria, and 8 from Russia.

There are three scholarships which pay all fees for the holders, and one fund by which tuition may be partially remitted for indigent and worthy students. The tuition is: For Germans, 270 marks; for others, 450 marks; and a charge of 30 marks is made for yarn, patterns, etc. Prizes are given for progress and good behavior. The school provides for the use of the students 43 handlooms and 16 machine looms, with the necessary preparatory looms and machinery. There is also a collection of spinning and weaving materials and a number of books of drawing patterns, besides a library of works and magazines on weaving. In 1891 the school was visited and the course of instruction studied by a large deputation from Manchester, England, and by a deputation from the Labor Bureau at Washington.

The course covers one year and is divided into two terms, one beginning at Easter and the other at Michaelmas.

The course of study is as follows:

## FIRST TERM.

(1) Lectures on weaving materials and on the construction and system of the different handlooms and supplementary weaving tools (four hours per week).

(2) Analysis of materials for Dobby and, as far as possible, for Jacquard looms; preparation of the accompanying pattern designs and calculations, together with the necessary instruction on loom appliances and finishing (sixteen hours per week).

(3) Practical exercises in Dobby weaving (eight hours).

- (4) Theory of composition (two hours).
- (5) Lectures on machine elements and motors; preparation of drawing for the instruction in mechanical weaving (four hours).
- (6) Instruction in sketching machine parts and free-hand drawing (four hours).

## SECOND TERM.

- (1) Lectures on machine looms and the preparatory and auxiliary machines used in mechanical weaving (eight hours).
- (2) Practical exercises in mechanical weaving (eight hours).
- (3) Theory of composition (two hours).
- (4) Analysis of Jacquard goods, of velvets, gauzes, ribbons, etc., together with the necessary instruction on loom appliances and finishing (eight hours).
- (5) Lectures on construction and mechanism of the Jacquard loom and of other complex loom appliances (two hours).
- (6) Practical instruction in Jacquard weaving, including velvets, gauzes, ribbons, etc. (six hours).
- (7) Free-hand drawing; arrangement of colored patterns; introduction to designing (four hours).

## LITERATURE.

Bertram, Fortbildungschulen in Berlin.

Lüders, Denkschriften über die Entwicklung der gewerblichen Fachschulen und der Fortbildungschulen.

Statistik der landwirthschaftlichen und zweckverwandten Unterrichts-Anstalten Preussens.

Oesterreichische Statistik, Band XXXVIII, Heft 4.

Statistik des Unterrichts u. Erziehungswesens im Königreich Württemberg.

Grob, Jahrbuch des schweizerischen Schulwesens.

## IV.—RURAL OR UNGRADED SCHOOLS IN GERMANY.

## INTRODUCTION.

The animated and timely discussion of the question of improving the ungraded schools of this country suggests an inspection of such schools in Germany. It was publicly asserted in *The Forum* (October, 1895) that—

The American farmer of two generations ago was a better educated man than is the American farmer of to-day. No one would ever have thought of calling him a peasant. He did not suggest such a thing in his manner of life, poor though it was; nor yet in his manner of thinking, though that may have been narrow. Let any candid observer go into a neighborhood where the land has been tilled by the same family for generations and let him find a farm where there are still three generations upon it. He is almost sure to find that those of the oldest generations can speak, write, and think with more accuracy than the second generation, and that the second generation will show more evidences of education than the third. This shows degeneration, and this degeneration can be directly traced to the decadence of the country public schools, which now are really beneath discussion, were there not a hope that by telling of their badness some interest might be excited, and that through this interest they might be improved.

This assertion by John Gilmer Speed is by no means an isolated one. The National Educational Association has recognized the necessity of

doing something to improve the rural school, and appointed a committee of twelve to prepare a report on the subject.

People who are acquainted with rural schools in Germany know that the difference in results between the urban and the rural elementary is not great. In the western parts of the Empire it is scarcely noticeable, because both kinds of schools virtually follow the same course of study prescribed by the Government, and the teachers of city and rural schools virtually receive the same professional training. Graduates of normal schools (so it was decreed recently in Prussia) are preferably employed in cities first, where, under the leadership of experienced principals and school inspectors, they may gain experience before they are placed in responsible positions in village schools. Thus it is seen that the Government considers the rural schools of equal, if not greater, value than the city schools.

#### THE RURAL SCHOOL IN GERMANY.

In order to present the scope and work of rural schools in Germany, the substance of an article by Mr. F. Hollkamm, a German teacher, is here inserted, which was prepared for Rein's *Encyclopaedisches Handbuch der Paedagogik*.<sup>1</sup>

(1) *Definition*.—The term "ungraded schools" means those institutions in which all children of school age of a school district are seated in one schoolroom and are taught by one teacher.

(2) *Name*.—This kind of school is variously named: "Gesamtschule" in Switzerland, "one-teacher school" in Bavaria, "one-class school" in Prussia, "ungraded school" in United States.

(3) *Varieties*.—These names indicate the two chief varieties of rural schools. In Switzerland and the United States all the pupils are

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<sup>1</sup> It is explicitly stated here that the use of the monitorial system described in this article is nowhere in Germany required by governmental decree, but it is the result of circumstances and custom. If a teacher is placed face to face with the task of teaching and disciplining 80 or more children he of necessity resorts to the make-shift of calling in the help of his older pupils. Ever since the inauguration of the system of compulsory education the rural teachers in Prussia have resorted to the employment of monitors, and in the following article it is shown how systematically and successfully it can be done.

It is also desirable to state that no pedagogical idea has aided the work in rural schools more than the idea of concentration as advanced by the disciples of Herbart. It is safe to say that rural school-teachers in Germany generally follow some system of correlating the branches of study by grouping them as well as their classes. As no governmental decree prescribes the method of instruction to be followed, the popularity of Herbart's pedagogy among the elementary school-teachers in Germany is very extended. The author of the article quoted in this chapter, Mr. F. Hollkamm, presents the features of German rural schools customary in many places. This is stated so as to leave no chance for any misunderstanding which might arise from the supposition that this article was an official report. The *Encyclopedia* of Professor Rein, for which Mr. Hollkamm furnished his article, is a most authoritative work of very recent origin.



present at all hours of the daily school session; in Bavaria, Prussia, and other German States the whole bulk of the pupils are together in one room only through a few lessons, while during a part of the day the advanced pupils are taught alone. In some parts of Germany the teacher devotes half the day to the primary and the other half to the advanced classes. Wherever such a separation of pupils into classes takes place the school is, strictly speaking, not an ungraded or one-class school any longer, for the use of the same room and the employment of the same teacher for both sections are unessential characteristics of the technical term "class." In this case the school is graded into a lower and upper grade, although taught by one teacher.

(4) *Deficiencies and advantages.*—It is obvious that the ungraded school, being the simplest and most incomplete form of school, must show many deficiencies. Since it is impossible to teach simultaneously the pupils of seven or eight yearly grades attending the school, they must be divided into sections, of which one is taught at a time, while the others are kept busy with written work or study of text-books. This seriously endangers the discipline, because pupils who have little inducement to work by themselves, and think themselves unobserved, tend toward infraction of the rules, and also because the simultaneous work of several grades in the same room is apt to divert the attention and lead to disorder. Instruction and learning under such circumstances can not be all-absorbing. Constant and unavoidable noise caused by slate work and movements made by active children disturb the lesson of the class just then reciting. The time given to each section is necessarily divided into fractions. According to the number of sections, "lesson hours" shrink to half hours, thirds, or quarters, and the time lost in changing classes and assigning lessons is considerable. Likewise the teacher's force is frittered away, especially if we consider the time it takes for the preparation of each day's work and for correcting pupils' written work after school hours. While the teacher hears lessons he must have his eye on the other sections engaged in work in their seats. If the time is short the work assigned has to be carefully measured off, so as to afford occupation without calling for undue strain. The teacher must hear all his classes or sections every day, and most of them two or three times. This leaves him not a minute of rest from the arduous duties of oral teaching.

Despite this dividing the time and the teacher's strength the pupil's individuality can not be cared for sufficiently. The differences of the pupils' individualities are greater than in other schools, since the rural school is attended by children of all ages (between 6 and 14), by all social strata, and by both sexes. The grading within the rural school can not be continued sufficiently to do justice to the difference in age, not to speak of other considerations, such as arise from the pupils' sex. Hence there becomes necessary during the actual lessons a high moral pressure which diminishes the interest. The more sections or classes

a teacher makes the less pressure is felt by each pupil; but in the same proportion in which this pressure is lessened the frittering away of time and strength increases. The reverse takes place if the number of classes is decreased. Injury to the instruction is unavoidable in either case.

These deficiencies or defects are offset by great advantages which may be traced back to three chief factors: First the family-like character of such a school; second, the facilities for intimate intercourse between teacher and community (or school and home), and third, the unity of the educational institution, which affords the rural teacher (who, as a rule, in Germany is a permanent officer) opportunity to watch the development of his pupils from infancy to maturity.

The first cause gives the teacher opportunities to influence one pupil by another; hence, both in regard to intellectual work and in the upbuilding of character, he is enabled to stimulate the individuality of his pupils and employ methods of procedure which resemble the mutual influence exercised by the members of a family upon one another.

The second cause enables him to influence the parents in behalf of their children. If the teacher enjoys the confidence of the parental home, he will not find it difficult to work toward better home training of his pupils and to aid the parents in the supervision of home work and in rendering assistance to weak pupils.

The best feature of the unclassified school, however, is its unity. This gives the teacher a liberty of movement and action which no teacher in graded schools can enjoy. To remove inconveniences, to institute improvements, etc., is possible to the teacher of the ungraded school, while the teacher of the graded school has to consult other teachers, the principal, and perhaps higher authorities besides, before he can make any changes. If, for instance, the progress made in one branch seems inadequate, the teacher, "who is master of all he surveys" and shares his authority with no one, can equalize the difference by giving more attention and time to that branch. He can aid a talented child to do justice to its natural gifts, and can help slow pupils to progress more quickly. He can exercise an influence upon his pupils for eight years. During such a long period the individuality of a child can be studied and impressed, and bad tendencies can be counteracted better than in schools where a teacher has his pupils just one year and then hands them over to another teacher. Instruction and ethical training both gain in intensity in a school in which the teacher acts in the rôle of father and mother for eight years. It is a weighty argument to know that the execution of the entire educational plan lies in the hand of him who planned it. Pedagogical demands, with reference to preparation, apperception, and concentration, can be heeded without difficulty. In regard to training, it is worth considering that the pupil accustoms himself, during a period of eight years, to the

peculiarities of his teacher, and not having opportunities to compare him with others he does not easily discover his weaknesses. Finally, the unity of the entire educational apparatus represented in the ungraded school causes in the teacher a feeling of increased responsibility. He himself reaps the fruit of well-performed labor, and for want of success he can not make others responsible.

Some advantages of more external character are derived from the division of the school into sections. The latter coincide with the grades of a city school, but their number of pupils is much smaller. Hence the individual pupils are strained, and their attention is taxed more in a brief period of time each day than the pupils of a graded school. A quarter of an hour devoted to 10 or 12 pupils may secure as great a result as a whole hour devoted to 70 pupils. At least there is no reason to think that the difference will be very great.

In weighing the advantages and disadvantages of an ungraded school two things should be considered: First, real defects exist side by side with undoubted excellencies. The latter must be utilized; the former can only be palliated, but not entirely removed. How to do this depends upon the personality of the teacher. On the other hand, the very defects of the schools are a constant check to all kinds of extravagancies in the teacher's methods. They oblige the teacher to prepare himself thoroughly, to be brief in his explanations, to restrict himself to that which is most necessary and essential in the selection of matter, and to give a broad margin to exercises and the practice of the matter learned. Self-activity on the part of the pupil is the necessary presupposition for the success of the ungraded school. That through its imperfections it obliges the teacher to foster self-activity in the pupil is one of the best features of this school.

(5) *Organization*.—In organizing an ungraded school the first thing to be done is the division of the pupils into sections; the next, to properly select pupil-teachers or "helpers" from among the most advanced and reliable pupils, and third, to institute a system of occupations for all sections that are not reciting to the teacher or to a helper.

(a) In dividing the whole school into sections several things have to be considered. If the individuality of the children is to be properly regarded, if a large amount of matter is to be thoroughly worked over, many divisions or sections are needed; the least number would be seven or eight. If, however, the frittering of time and strength is thought of, and skill and circumspection wanted in keeping occupied all sections not under immediate supervision; if the disturbances arising from frequent changes of classes and occupations are dreaded, it would seem as though two or three sections were preferable. Hence the following compromise between the different considerations may be recommended: The differences in natural gifts are, as experience teaches, greatest during the first year of school; besides, the "road to learning" is narrow in the beginning, and progress rapid;



hence the first-year pupils should form one class. During the next few years an equalization takes place between the differences in individuality; the "road" and the horizon widen, and progress is slower; reviews are here easy, hence two yearly classes may be combined without detriment to the pupils. In schools of an eight-year course the pupils of the last three years might safely be combined into one section. This would give the following combination:

First year = Class or Section I.

Second and third years = Class or Section II.

Fourth and fifth years = Class or Section III.

Sixth, seventh, and eighth years = Class or Section IV.

This combination is permanent, and holds good for all the branches. Only in singing, and possibly in other minor branches, the whole school or several classes may be thrown together. In assigning work to be done by the pupils in their seats, it must be arranged so as to increase both the difficulties and the amount of work as the class advances in years.

(b) The employment of pupils for the purpose of aiding the teacher in keeping order and supervising the work is called the monitorial system. Pupils who help to keep order in school and on the playground are simply monitors. If they are called upon to aid other pupils in their work, or hear them recite, they are pupil-teachers. These are sometimes assigned to aid individual pupils in seat work in which they find particular difficulties—in that case they are silent helpers; or they may at times be assigned to hear an entire class of not more than ten pupils recite—in that case they act as teachers. They may hear a class in spelling or reading, or recite memorized poems; they may narrate stories for composition exercises, review lessons heard from the teacher himself, dictate sentences or words, and conduct lessons in penmanship. In short, they may be employed as assistants in various branches and occupations. Monitors may be used in graded schools also, but pupil-teachers are a specialty of ungraded schools.

The propriety of employing pupil-teachers has often been doubted. It has been said, pupils are incapable of giving instruction. They disturb with their work the repose of the schoolroom and enter as confusing elements in the personal intercourse between teacher and pupils. The latter objection holds good only if, as was done in the Bell-Lancaster schools, the system of pupil-teachers is unduly extended, so that the teacher becomes a mere overseer of a knowledge shop. It is true, pupils are not capable of giving instruction according to educational principles, since they lack the requisite knowledge of psychology and pedagogy. But instruction implies a variety of work for the purpose of practice, for which merely a steadfast adherence to duty is needed. This refers chiefly to written exercises, reviews, and application of things learned during lessons. The weightiest consideration is the noise and



commotion caused by the pupil-teachers. This will lead to a restriction of the system in small, inconvenient rooms; but in spacious school-rooms, especially schools that are provided with vestibules, anterooms, and cloakrooms, the system of pupil-teachers may be employed to advantage.

The desirability of employing pupil-teachers<sup>1</sup> arises from the necessity of shortening the time of silent study or written work. If the school is divided into four sections the teacher can devote only fifteen minutes per hour to each section; hence each section has forty-five minutes per hour for work in their seats. If pupil-teachers are employed this period of forty-five minutes may properly be abbreviated to thirty minutes, besides making the pupils perform more work—that is, employ their time more profitably. The exercise or application of matters learned during oral lessons with the teacher becomes more thorough, hence self-activity on the part of the pupils is promoted by the silent occupation following. Above all, employing pupil-teachers affords all the pupils better opportunities to use their tongues. It is torture for a child to keep silent for three-quarters of an hour, and it may injure the development of his command of language.

Pupil-teachers are not to be employed indiscriminately. In important branches, where facts are transmitted and emotions are awakened, like religion, natural history and natural science, geography and history, the work of the teacher will have to be very prominent, while in other branches where skill of performance is the main point, like reading, grammar, spelling, penmanship, and drawing, as well as arithmetic (especially written), the pupil-teacher can serve most acceptably.

Monitors for keeping order may be taken from any section except the lowest. Pupil-teachers must invariably be taken from the most advanced section. In order not to retard the progress of any pupil-teacher in his own work, it must be the rule never to assign a pupil to teachers' duties while his own class is reciting to the teacher or receiving instruction from him. The benefits accruing from duties as pupil-teachers are very material. They are chiefly found in the review of the pupil's own knowledge. The time they lose from that devoted to silent work is fully made up by the thoroughness these reviews secure; moreover, a sensible teacher will choose the most talented of his advanced pupils, who rarely need as much time for silent work as the average pupils.

In order to make the system successful, it is imperative to give the pupil-teachers special instructions as to how to proceed. If this claims more time than brief orders will take, it is well to call them to the teacher's desk during recess, or before and after the daily sessions, and give them specific instructions. Even written preparation is advisable

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<sup>1</sup> A number of authoritative expressions on the subject of monitorial or mutual instruction, often called the Bell-Lancaster system, is appended at the close of this article. They are translated from the German.

by using "class journals" and "question books," which contain notes as to the order of procedure and leading questions concerning the matter to be gone over. These questions (together with the answers) should be carefully gone over with the pupil-teachers, so as to enable them to conduct miniature recitations. The questions consist of main and subordinate questions, which may be designated as such by marginal notes or marks. The tasks assigned to the pupil-teachers are to be frequently changed, lest they result in parrot-like repetition. There are several models of question books for pupil-teachers published in Germany, of which Dörpfeld's are considered the best.

(c) The silent occupations (seat work) may be written or mental. We class among the first: Copying, writing from memory, composition and other language work, correction of written work, map drawing, drawing of sketches in connection with nature study and geography, other drawing work, penmanship, writing music, and work in arithmetic. Mental occupation may consist of reading, recalling narrations, search in dictionary, map reading, reading of music, and memorizing poems or other matter. Both occupations have their merits and demerits. The written work, is easier to control, but causes more noise than exclusively mental work which requires a high degree of skill in reading if it is to be performed in absolute quietude. Mental work is not easily gauged by results.

The two kinds of occupation are to be carefully prepared, both by the teacher during his lessons, and the pupil-teacher after school hours. They must be adapted to the capacity of the pupil. The teacher is obliged to consider the combination in class of pupils of two yearly courses; that is, require increased work of the elder section of that class. At times he will present particular difficulties to the most talented of his pupils, and ease the work of weaker ones. Best adapted for pupil-teachers' work are exercises that require no lengthy explanations and may be extended or broken off at will, as for instance written number work. It is at all times imperative to leave no work uninspected. If much more time is needed for inspection of the written work than can be spared from the teacher's lessons, he must do it after school hours or during recess. Frequently an immediate inspection is necessary and can be performed by a pupil-teacher, but great care is required in the selection of that particular pupil in order to prevent deception. As far as possible the written work should be facilitated by preventing errors, rather than correcting errors after they are made. To look over the pupils' written work carefully means the loss of much of the teacher's valuable time, yet, if he leave this work undone, he would cause injury by this omission.

If at times no chance is offered a class for silent occupation or other work, it would seem preferable to dismiss that class. This case often happens with the primer class shortly after their admission to school. It may be well at times to allow a class to listen to the recitation of

another, instead of giving them work to do; for instance, during recitations of poems and narrations, reading of composition, etc., other classes may listen. In a few cases the teacher may occupy two sections simultaneously. He may hear one class in grammar and dictate words for spelling to another. Lessons in mental arithmetic may be carried on with two sections. However, such double work is rather objectionable, owing to its difficulty. A commendable method of abbreviating the time for silent work consists in calling for aid upon a next higher class to present new matter to the lower. This takes a burden from the teacher and offers opportunity to the pupil for a thorough review of some particular point. Of course the most radical means for the abbreviation of the time for silent work is the diminution of the number of sections, but since that can not be well done owing to reasons advanced before, the teacher may vary the number of sections according to the branch under treatment; for instance, in reading not so many sections are needed as in arithmetic. However, such variations must be left entirely to the good judgment of the teacher, who must needs be professionally prepared.

(6) *Course of study*.—Making a course of study for an ungraded school involves two chief considerations, selection and order of branches. With reference to the selection—that is, “The what and the how much” of any subject prescribed—few suggestions can be made. With reference to the order in which the branches are to be taken up, the question arises, “What modifications of the pedagogical demands for the arrangement of matter are needed in order to do justice to the peculiar conditions of the ungraded school?” In the further discussion of this question a sketch of a course of study may show the practical execution of proposed plans.

(a) Since the ungraded school, like all other educational institutions, is to generate many-sided interest, it follows that the course of study must be relatively complete. A complete course of study will contain the branches representing nature-study as well as culture-studies. It will never be profitable to cut out such branches as history, natural history, and geography, and restrict the work to religion, language, arithmetic, and singing, in order to gain time. The same demand for many-sided interest will call for the insertion of art instruction; hence drawing and music must be included. Sufficient time must be devoted to literature, by treating poems and prose pieces not merely from a grammatical, but from a literary standpoint. Again, in the unclassified and in all other educational institutions, the object of which is to educate and train, and not merely to transmit knowledge, a consideration for the individuality and the environment of the pupil will have its effect upon the selection of matter. The fact that children of the ungraded rural school are in more intimate connection with nature and its phenomena than city children will have weight in the selection of subjects for nature-study. Again, the fact that in the greater number



of rural communities dialects are spoken instead of high German, calls for special attention to language studies. Arithmetic and geometry, penmanship and gymnastics, can of necessity not be omitted from the studies of the ungraded school.

(b) When considering the amount of matter selected the teacher has to guard himself from going to extremes. If he selects too much, he is apt to treat all subjects superficially, owing to the want of time devoted to lessons and recitations conducted by himself; nor can he thoroughly ingraft facts upon the minds of his pupils. Interest can arise only from firmly rooted and well grouped concepts. On the other hand, if the amount of matter is very much restricted it will not generate an interest, because a certain number of concepts are needed for that purpose. Interest will be weak where it is not fed by a wealth of concepts. In order to avoid the dangers of both extremes, the course of study must contain some matter from all the branches mentioned. Three methods for maintaining the pupils' many-sided interest may be mentioned: First, the amount of matter in the various branches may be diminished according to their importance, but not at the beginning, when the principles and fundamental facts are presented, but rather higher in the course. Second, by prudent arrangement of lessons and intimate correlation of matter time and strength may be saved. Finally, in every branch of the course the points which are of typical importance, and hence may serve as centers for less important matters, should be treated thoroughly and practiced more frequently. For instance, in arithmetic it is vital to let the pupils understand that "5 per cent" is a common fraction and means one-twentieth. Exercises that will make this clear beyond doubt are more necessary than all the many "cases" developed from different conditions or points of view. If, in biblical history, the story of Joseph up to his elevation in Egypt is treated thoroughly, the journey of the brothers need be only read or narrated. In natural history the dog is studied minutely, while wolf and fox, representatives of the same class, need less attention. The main items of any series of concepts must serve to generate the interest; minor matters serve to correlate and establish connection. These three methods lead us to special questions concerning the course of study.

(c) The science of pedagogy rejects the formerly customary aggregate of branches called a course of study and demands a plan which is unified and systematically arranged. According to this plan, furnished by Ziller and his disciples, the order of the matter taken up is according to steps analogous to the history of culture. This is not the place to discuss the relative value of this arrangement. Let it be said that Ziller's plan does more justice to pedagogical demands with regard to preparation, apperception, and concentration of instruction than the commonly advocated arrangement according to concentric circles. The latter arrangement serves the acquisition of knowledge, while the



former aims at ennobling and training the pupil's emotion and will as well as intellect.

Since it is obvious at first glance that the complicated plan of Ziller in its original form, intended for schools of eight grades, can not be applied in the ungraded school, the question arises how it may be modified to suit the occasion.

In "Gesinnungsunterricht" (influence upon the sentiments and heart), the last of the eight groups of Ziller, that referring to the catechism may be omitted. This group does not represent a special step in culture. A systematic connection of the catechism with biblical history is easily established and may find its conclusion in the history of the Apostles. On the other hand, the ungraded school can not do without fairy stories and Robinson Crusoe. This school receives its children chiefly from among peasants and the poor farmers, in whose homes a true family life is rarely found, owing to the variety of duties that both father and mother are obliged to pursue. The result is, that the children come to school with very imperfect language and almost void of important concepts. Their religious horizon of concepts is particularly limited, hence much attention to biblical history during the first two school years can not be advised. Narrations of the life of Jesus will awaken a religious feeling and primary concepts. Then, by means of narrations, such as fairy stories and the adventures of Robinson Crusoe, the children's language is improved and their thought concepts increased. In connection with this work a limited number of ethical concepts are awakened. Then may follow a discussion of biblical stories in accordance with the given steps of the history of culture. First, the time of the Patriarchs; second, the Judges; third, the Kings; fourth, the life of Jesus; fifth, the time of the Apostles. The three periods of the Old Testament should claim about equal time with the two periods of the New Testament. The life of Jesus should at all times be the most important part of religious instruction.

Analogous to the series of concepts awakened in the "Gesinnungsunterricht," the matter in the other branches is to be simplified. In history the events of modern times will naturally be treated slightly. During the earlier school years fairy stories and the adventures of Robinson Crusoe will replace the historical instruction. For the preparation of the three periods of German history—namely, the time of the kings, the reformation, and modern times—it will be sufficient in ungraded schools to touch upon the "Nibelungensaga," which may represent the heroic time of the nation. The Thuringian stories may be omitted and be replaced by home stories, which may be offered in connection with home geography. For the study of nature the two steps—the time of the shepherds and agriculture—should be treated more thoroughly. The discussion of the time of hunting may follow in connection with so-called object lessons preparatory to the study of nature and geography. The industrial step and a discussion of technology,

physics, and chemistry deserve relatively little time and attention. Geography should consider the description of home and fatherland as well as the continent of Europe; other continents are studied only in connection with history. Points which are of importance in connection with historical events should be found on the map. In language instruction the teacher should restrict himself to prose pieces of epic character and to poems of epic and lyric contents. The step called "dramatic" poetry might be omitted or only touched upon in connection with model pieces from the reader. The principle prescribed by the Government that grammar and spelling should be limited to suit existing local circumstances is particularly important for ungraded schools. Instruction in drawing must, as Menard conclusively proves, have an independent field for its choice of matter, but even this matter must be arranged according to the history of culture. The ungraded school can develop the geometric ornament a little better than conventionalized plant forms. Drawing of solids will prove to be impossible and may be replaced by the coloring of printed drawings showing perspective. In singing the teacher will find it best to use juvenile songs with epic contents; in the upper grades songs with epic and lyric contents. Hymns are to be taught in every grade. In arithmetic the number cycles from one to ten, from ten to one hundred, and from one hundred to one thousand should be treated with much thoroughness in the four fundamental rules, both with denominate and undenominate numbers, while for quantities beyond one thousand numeration and notation is all that is necessary. In arithmetic every rule learned should be applied to circumstances from daily life. It is not so much skill in handling large numbers as it is skill in the manipulation of small numbers and fractions which should be aimed at. Penmanship needs to be practiced only in the lower sections; while in sections 1 and 2 the German script is practiced, the Latin script is added in the third section. Though the pupils are to some extent prepared for geometry during the lessons in drawing and mensuration, it is not taken up as a separate study until the seventh year of school, and is restricted to the simplest geometric bodies.

(d) The arrangement of the matter of study is determined upon in Ziller's plan according to the idea of concentration. Since this idea is excellently adapted to act as a counterweight in ungraded schools to the unavoidable loss of time and strength, it may be applied with benefit for pupil and teacher. This application may take three forms, which may be mentioned briefly. First, in the lower sections certain branches are grouped together; for instance, knowledge of nature and home is connected with the most important branch of language studies, the so-called object lessons; likewise with arithmetic. Again, the different branches of nature study should consciously be united; for instance, it should not be said that zoology, botany, mineralogy, and physiology are taught, but the science of nature. In language it should not be

called literature, composition, grammar, and spelling, but it should at all times be called language. Instruction in religion will not suffer a division into biblical history, catechism, biblical quotations, hymns, and Bible reading. In this, as in all other branches, unity must be observed. Third, related branches should be connected and grouped around instruction of religion as the central, ruling branch of the whole course.

While the first two points may easily be observed in the ungraded school, the last one may cause some difficulty, owing to the fact that there are not as many sections as there are steps in the course. The "central, ruling position" of instruction in religion is understood to mean that from it depends the instruction in history, both with reference to the selection and arrangement of matter. Side by side with it we find various branches of nature study which in their contents form a contrast to the first group, but keep step with the others according to the capacity of the pupils and their command of language. These three branches—religion, history, and nature study—in their relation to each other represent the religious, ethical, and material side of education. Subordinate to these are geography and language, and all other studies.

If the ungraded school could treat in a separate section each group of matter in the branches that are intended to ennoble the heart, it would not be difficult to correlate history, geography, and nature studies with all the remaining branches. After the second year of school such a combination is impossible. Having two yearly courses combined in one section, it can not at the same time treat two groups of branches satisfactorily; for instance, Robinson Crusoe and the Patriarchs, or the Judges and the Kings, or the life of Jesus and the history of the Apostles. Moreover, the order of the groups can not be changed; the history of the Patriarchs should not precede the story of Robinson Crusoe. Neither can the amount of matter be restricted so as to give the work of one year to a two years' course. This would cause an unnecessary and tiresome repetition for the older children. If promotion were to take place every other year, instead of every year, it would presuppose admission to school every other year. All these difficulties prevent the adoption of the original plan of Ziller. Nothing is left but to treat both groups simultaneously, or rather alternately, changing semi-annually.

This holds good not only for the matter to be gone over in the study of religion, but also in other branches, notably in history, geography, etc. Though the difficulties are great, the idea of concentration need not necessarily be abandoned, though some branches need more of a genetic than a concentrated treatment. (The author enters into very minute details, which may be omitted, owing to the fact that Ziller's plan is by no means heartily approved in Germany, nor extensively followed. The author is evidently a pronounced adherent of Herbart's



and Ziller's pedagogy, which has not been generally accepted. The author is a very well known and successful rural school-teacher, and it is quite obvious that his plan in all its various minute details is the result of experience. But the conditions in the rural schools in this country are so different that his details, so far as they refer to methods of instruction, can not be applied easily.)

(e) The following sketch of a course of study may indicate how the matter of instruction may be distributed over four sections, representing eight school years:

#### FIRST SECTION.—FIRST SCHOOL YEAR.

*Ethical and religious matters.*—Six biblical stories from the life of Jesus; eight to ten of Grimm's Fairy Stories.

*Object lessons* (combined with next higher section).—Objects from the horizon of the children, and others illustrating ethical and religious matter. Lessons to be enlivened by memorized verses.

*Language.*—German script and print, excluding words with accumulations of consonants. Normal words chosen from matters treated in the foregoing.

*Number work.*—The four fundamental rules within the number cycle of 1 to 10.

*Drawing.*—Sketches of objects illustrating object lessons and lessons in ethical and religious matters.

*Singing* (combined with the next section).—A few simple children's songs and a few hymns.

#### SECOND SECTION.—SECOND AND THIRD SCHOOL YEARS.

*Ethical and religious matters.*—Six to 8 stories from the life of Jesus; 16 chapters of Robinson Crusoe; 12 to 14 stories of the time of the Patriarchs; in connection with the latter related matters from the catechism and a number of biblical quotations and verses.

*Object lessons* (combined with section 1).—Discussion of natural objects and phenomena relating to Ziller's step of hunting and herding. Geographical treatment of the environs and widening of the horizon.

*Language.*—Small prose pieces and poems of ethical contents. Special exercises in the skill of reading; accumulation of consonants mastered, sounding, spelling, Latin script; copies of writing from dictation, and similar exercises. The simplest facts of etymology and syntax of simple sentences.

*Drawing.*—Free-hand drawing, aided by stichographic devices.

*Penmanship.*—The small letters and capitals of German script.

*Arithmetic.*—The cycle of numbers from 1 to 100; operations in the fundamental rules with denominate and undenominate numbers.

*Singing* (combined with section 1).—Juvenile songs and a few easy hymns.

#### THIRD SECTION.—FOURTH AND FIFTH YEARS.

*Ethical and religious matters.*—The four gospels; 12 stories from the time of the judges; 16 from the time of the Kings. In connection with these matters related portions of the catechism. Psalms and hymns to be memorized. Some episodes of the Nibelungensaga; 12 to 16 stories from the time of the German Kings up to the time of the Reformation.

*Nature studies.*—Twenty to 24 subjects from Ziller's step of agriculture and horticulture; some subjects taken from the woods, and reflections upon the weather and change of seasons.

*Geography.*—The home province or state, followed by a description of Germany; map reading and map drawing.



*Language*.—Fifteen or 16 poems and prose pieces to be carefully treated and 10 to 12 compositions to be made annually. The necessary rules of grammar and orthography, including syntax of the compound sentence.

*Number work*.—The fundamental rules within the cycle of 1 to 1,000, with denominate and undenate numbers. During the latter part of the year notation and numeration of numbers beyond 1,000.

*Drawing*.—Free-hand, with the aid of given dots.

*Penmanship*.—Small and capital letters of Latin script.

*Singing* (combined with section 4).

#### FOURTH SECTION.—SIXTH, SEVENTH, AND EIGHTH YEARS.

*Ethical and religious matters*.—(a) Religion. During the first term, 20 to 24 stories from the life of Jesus; reading of the New Testament, especially the gospels; catechism in connection with this. Hymns for Advent, Christmas, and Passion Week; between Christmas and Easter, 12 stories from the times of the apostles; catechism and Bible quotations; appropriate hymns. For opening exercises and on other occasions some of the epistles may be read. At all times religious instruction should consider the church festivals. (b) History. During the first term 12 stories from German history, from Luther to the French revolution. After Christmas, 8 stories from modern history, the Napoleonic wars.

*Nature studies*.—Twelve subjects from Ziller's step of trades; 8 to 10 subjects from the industrial step. In connection with this, something from physics and chemistry interesting and important for rural communities. Six to 8 subjects of physiology, and frequent reviews and references to matters gone over before.

*Geography*.—Twelve topics from the geography of Germany and other European countries; 8 topics from other continents; 4 to 6 topics concerning astronomical geography.

*Language*.—Twenty poems and prose pieces; 12 to 15 compositions annually; the simplest rules of style; grammar, including syntax of the complex sentence. Rules for orthography.

*Arithmetic*.—Conclusion of fractions, decimals and common; percentage and some business rules.

*Geometry*.—Cubes, rhomboids, pyramids, cylinders, cones, and spheres. Planes, angles, and lines are only considered in connection with solids.

*Drawing*.—Free-hand drawing without guiding lines or dots. Geometric ornaments and the beginning of conventionalizing forms.

*Singing* (combined with section 3).—Twenty-five to 30 songs and 30 hymns within the three years' course; notation and reading of music; exercises in intervals.

*Gymnastics*.—Gymnastics can be carried on with the whole school, three sections looking on while one exercises; or games may be conducted with the lower classes, while the upper use the apparatus.

(7) *The methods of instruction* are the same for ungraded as they are for graded schools. They must be based on pedagogical principles derived from psychological imperatives as they have been formulated in systematic connection in Ziller's theory of formative steps. Only a few remarks need to be made because Ziller's theory is not the subject of discussion.

Time is wanting in the ungraded school for direct instruction from the teacher, moreover, that instruction is divided into half hours and quarters. The former fact obliges the teacher to treat only the most important matters according to the five steps; less important ones can be worked up only on the first two steps. Even with subjects demanding great care and much time, certain restrictions are absolutely unavoidable.

able. The whole organization of the school admits of no waste of time; at no period during the course may the teacher retard his progress. He must always have such ends in view which the pupil's concepts can readily reach and securely comprehend. If preceding matters have been thoroughly understood and frequently practiced, the first step, that of preparation, need not claim much time. The presentation of new matter is restricted by the time available. The same is true with the third step, and the explanations it requires. The fourth step, association, will require only a few examples for comparison. The fifth step may be represented by one sentence which crystalizes in compact form what has been learned. This abbreviation of the mode of procedure is unavoidable. The exercises following should under no circumstances be too much shortened. It is very desirable that they should have reference to the material used to make the instruction objective as well as to the thought material.

The division of personal instruction on the part of the teacher into small periods of time makes it necessary to crowd the formative steps into each hour of the day. It would be sheer waste of time to begin with aim and analysis in one hour and to continue with synthesis in another, for during the time between the two lessons the awakened concepts will vanish. The preparation must occur in the same hour in which the presentation of new matter occurs, and possibly also the total result of the oral instruction should be crowded into that lesson. During another hour the presentation may be repeated and explanations added. Neither should association be separated from application. According to the importance and extent of the methodical unit several hours may be needed to do it justice. In a minimum of three hours, that is to say lessons, the following distribution may take place: First hour, aim, preparation, and presentation; second hour, explanation and combination; third hour, repetition, association, and application. In a maximum of eight hours the steps may be distributed as follows: First hour, aim, preparation, and presentation, part 1; second hour, review, presentation of part 1, with amplification; third hour, part 2, amplification and review; fourth hour, part 3; fifth hour, part 4; sixth hour, systematic review, combination with previously established thought centers, and development of the system, or crystallization of the result; seventh hour, arranging the new results among previously acquired matter; eighth hour, application with thorough review of a whole series of results terminating in the one just acquired.

Now, to carry out the system of formative steps successfully, it is necessary, also, to take into consideration the home occupations of the pupils. Thus the aim may be touched upon during the very first hour so as to cause pupils to think ahead. During the time of silent occupation at their desks the pupils may gather material and note it down. Material for association and application may be found without the aid of the teacher, and all this work may be either in writing or oral. There are

various ways of aiding the method if the pupils are systematically trained in self-active work. No other school will aid self-activity as the ungraded school will, for the pupil, when he comes face to face with a difficulty, must not go to the teacher for help, because at that time the teacher is busy with another class and can not give him an audience. Note the difference between this and the graded school, where the teacher has only pupils of one grade. The teacher's aid is at all times at hand and readily given.

(8) *Time-table*.—In arranging the weekly plan of lessons—that is, a time-table—the question of greatest importance is, How many hours of work may judiciously be expected of the teacher?

(a) Overburdening of the teacher is to be avoided. In the ungraded school he has not only, like other teachers, to study his professional science, pedagogy, and supplementary sciences, but he is also obliged to prepare himself carefully for his daily lessons, and must furthermore perform a number of duties which are unknown to teachers of graded schools. He must prepare question books for his pupil-teachers, instruct these young assistants orally, plan for silent occupations of several classes, and do other things. To this comes the very exhaustive work in the schoolroom, where almost the only rest for his lungs are the minutes which the pupils require to answer his questions. If under such conditions the teacher's time would be extended to more than thirty hours' actual school work, it would be the ruin of his health, and the freshness for his mind would be irreparably injured. On the other hand, there is the consideration of keeping the number of hours high enough to enable him to treat every branch of study properly. Taking thirty as the maximum of weekly school hours, both sides of the question seem to be well considered.

(b) In dividing the time so as to represent the various branches the following general principles should be considered: First, branches should be given more time than others if they belong to the group designed to awaken ethical consciousness; second, that the special nature of each branch should be considered with reference to its furtherance by exterior conditions. Thus, for instance, the historic branches need more time than the nature studies, because the presentation of the events need more time than the showing and handling of objects. Naturally, subjects that depend upon actual sense perception can be taught more quickly than branches such as religion, history, literature, and a few others, in which the spoken or printed word is almost the exclusive carrier of thought. Again, a well-articulated branch needs more time than one of simpler construction. Branches rich with apperceiving concepts may be given less time than those in which the concepts have to be generated first. Finally, it should be considered whether a branch offers more or less opportunity for silent occupations. In the latter case more, in the former less time is needed. For instruction in religion all these considerations claim a large number of lessons.



We have therefore assigned it six lessons a week, of which one hour may be taken for the opening or devotional exercises. In some villages these are given on Sundays in what we here in America call Sunday schools. If this is the case, three to four hours can be assigned to the upper and middle grades, while two to three lessons are given to the lowest grade. The study of history needs rarely more than two hours a week, because it is taught only to the upper grades. Moreover, the articulation of that subject is less minute than in religion. Nature study needs, owing to its importance, a large number of hours because it has numerous subtopics. But since in rural schools the whole cycle of life of the children offers advantages for that kind of study, three hours per week of systematic study must suffice. Geography may have two hours a week. To the five hours given to nature study and geography must be added two hours of object lessons given to the lower grades. These lessons are preparatory to both nature study and geography. In all the branches mentioned so far two sharply defined grades or sections are understood to exist, except for geometry. Five lessons are given to language; that is, the study of the mother tongue. Less than that will not suffice; first, because it is supplementary to all the branches of the course; second, because systematic instruction in language will wipe out dialectic irregularities in the children's speech. More than five hours for language will not be needed, because all instruction is language instruction, and because this branch offers many opportunities for silent occupations at the desk. Language instruction, properly so called, serves only indirectly the highest aim of education (see what the author says under "Aims of instruction" in the beginning of this article), and may be combined in many ways; for instance, grammar and spelling, grammar and composition, spelling and copying, etc. For drawing and penmanship the former relation has been reversed. In arithmetic the customary assignment of four hours, as well as the assignment of two hours for singing and gymnastics, is retained. Gymnastics is dropped in the winter and in place of it geometry is inserted.

From the foregoing we obtain the following distribution:

|  |  | Hours. |
|--|--|--------|
| Upper and middle grades, sections 3 and 4:       |  |        |
| Religion.....                                    |  | 3-4    |
| History.....                                     |  | 2      |
| Nature study.....                                |  | 3      |
| Geography.....                                   |  | 2      |
| Lower grades, sections 1 and 2:                  |  |        |
| Religion and history.....                        |  | 2-3    |
| Nature study and geography (object lessons)..... |  | 2      |
| All three grades, sections 1 to 4:               |  |        |
| Language.....                                    |  | 5      |
| Arithmetic.....                                  |  | 4      |
| Drawing.....                                     |  | 2      |
| Singing.....                                     |  | 2      |
| Penmanship.....                                  |  | 1      |
| Geometry (in section 4).....                     |  | 1      |

This makes a total of thirty hours per week.



In summer the hours may be of necessity abbreviated, since the school session is often disturbed by the needs of the parents and frequently restricted to the forenoon. In that case nature study has to give up one lesson, language also one hour, and drawing one hour. Geometry is combined with arithmetic. An addition is made by inserting two hours for gymnastics, so that the entire number of weekly hours is twenty-eight. The free afternoons may be used frequently for little excursions into the woods, where oral instruction is given incidentally and in a pleasant manner.

(c) With regard to the succession of lessons, both psychological and physiological rules should be heeded, but local considerations cause many deviations from rules prescribed by psychologic-pedagogic demands. As far as the effect of concentration upon the daily plan of lessons is concerned, the lessons should follow according to the degree of relationship existing between the branches, so that the unity of the whole plan is not violated. A lesson in religion, for instance, might be followed by one in history; this may be followed by language, then might follow penmanship and singing. But arithmetic or geometry should not follow upon a lesson in religion. The combination of heterogeneous branches disturbs the mental balance or composure of the pupils and the teacher; moreover, it spoils the continuity of instruction.

Physiological considerations demand that the branches claiming the greatest outlay in brain force be treated in the forenoon, when the mind is fresh. Branches which aim at mechanical skill can safely be given time in the afternoon. However, in some schools the requisite light may be wanting in a latitude in which twilight begins before 4 o'clock. Again, the "confirmation lessons" conducted by the parish pastor either in the church or the parsonage cause much loss of time owing to the long walk for children who have to go to a neighboring village to reach the church.

It would be utterly futile to prescribe a time-table adapted for every school. Local circumstances determine the table everywhere, and occasional changes of the time table are not at all objectionable since they may serve to prevent dead routine.

Besides the regular time-table designed to aid both teachers and pupils, the teacher should prepare for himself another plan, a so-called "plan of work," in which he notes down what each section in each lesson does, be it conducted by the teacher himself or by a pupil-teacher, or whether it consists of written work and silent occupations. Such a plan of work can not be made for the whole year, not even for a term, but it is wise to make it from week to week.

(9) *Equipment*.—In building and equipping ungraded schools the wealth or poverty of the community is in most cases regarded above considerations arising from the demands of pedagogy and hygiene. At this point we have nothing to do with local considerations and may

confine ourselves to the latter point, which is not at all incompatible with economic equipment.

(a) The schoolhouse must have a healthy location far from disturbing noise, such as paved streets would cause. It must not be surrounded closely by trees which would shade the schoolroom windows, though the spacious playgrounds should be studded with trees. Since in central Europe in rural schools the dwelling of the teacher is usually under the same roof with the schoolroom, it is well to have the schoolroom and teacher's study or office connected by a glass door. The schoolroom should be bright and spacious, more wide than long, so that the whole school is divided by a broad aisle into two sections, each one of which contains two classes or grades. If the pupils' seats are as they should be, adjustable to the height of the pupils, it will materially aid in organizing and managing the school. It is not advisable to have the teacher's desk perched on a high platform, but it should be on a level with the class, and might be movable, so that the teacher, if necessity arises, can move himself as the center of attention, and yet have his aids and paraphernalia within reach. It is also advisable to place a screen in the aisle between the class which the teacher hears himself and the others busy in their seats. One or two more screens used in the corners may serve to deaden the sound caused by the work of pupil-teachers. The location of the windows is very important. If they are high and placed so that the light falls upon the left and the rear of the children, they will serve all the different classes and leave wall space enough for blackboards and charts.

(b) The apparatus and other devices must be ample, yet of such a nature that they will claim little space. When procuring them it must be considered that they are to serve an entire school system, hence must embrace the objects required by all the eight grades of the school. Much more space should be utilized for blackboards. One space can be provided for painted lines for penmanship, and for writing music. If there is an anteroom which can be utilized by pupil-teachers it should have a blackboard also. Spaces between the windows and doors may be used for matters which it is desirable to exhibit for a longer time than a day or a lesson. Charts and maps should be arranged like window curtains, so that they can be rolled up, and thus saved from the destructive effect of dust. There must be picture charts for illustrating history and geography. The school should also have a cabinet with objects for nature study and object lessons, which cabinet can be replenished with new objects procured during the brief excursions. An abacus, reading charts, and the like should never be wanting.

The number of text-books should be very limited. All that seems to be necessary in this line is a Bible—that is to say, a school Bible, not the unabridged edition—a catechism, which is usually bound together with the school Bible; a hymn book; a reader, which may at the same

time be used as a source of information for historic, geographic, and other instruction; a book of examples for arithmetic, and a small book of songs. It is absolutely necessary, however, to have the readers graded in at least four books. Where it is admissible, exercise books should be used for the branches that require the retention of numerous facts. It is to be regretted that the needs of the ungraded school in regard to text-books are rarely considered by authors, most text-books being compiled for the special needs of the graded school; hence much more preparation is required of the rural teacher than of the city teacher.

(10) *The teacher's position.*—The external conditions of the teacher in ungraded schools leave much to be desired.

(a) The salary of rural teachers in Prussia and in Bavaria, as well as in other German States, rarely reaches the sum of 1,000 marks, equal to \$250, and in very exceptional cases does it exceed 1,000 marks. This sum appears very small, but it should not be forgotten that the teacher does not have to pay rent; he lives in the schoolhouse, and frequently has the use of from 5 to 40 acres of land. In most cases the teacher is obliged to work this school land and raise provisions. Where the teacher has a large family this item is of no small account. Sometimes he is obliged to give private lessons and do other work to increase his salary. Positions that offer very low salaries are usually given to young normal-school graduates, who are always well enough versed in economic living to make both ends meet. These conditions make ethical and scientific instruction very difficult. Not until the teacher is free from material care can his work in school become beneficial to his pupils and to the entire community. So long as he is an object of pity and commiseration he will not exercise that influence which the teacher of the growing generation must command to be useful to the children and their parents.

(b) Viewed from the standpoint of pedagogical science, the supervision of ungraded schools leaves much to be desired. It is frequently performed by men who have a theoretic and philosophic professional education, but in the rarest cases a pedagogical preparation. This want is the natural consequence of the absence of pedagogical seminaries in universities. Moreover, the supervisory officers learn to know the ungraded school only from occasional visits; and they are usually performing the duties of supervisors in addition to other regular duties, such as the duties of pastors. Though it is required of such men to spend six weeks in a normal school after they have completed their university course, this smattering of professional education is insufficient to do full justice to the schools under their charge, schools which, by their numerical importance, are one of the most essential sources of culture for the majority of the people. Again, no one can serve two masters, the church and the school; church services and school services should be separated. Teachers who have gone through a regular course



of normal training perceive more accurately the insufficiency of the present system of supervision. Young graduates being placed in charge of rural schools, though they may be theoretically well supplied with knowledge, need professional advice, and under the present circumstances can not get it. Goltseh, in his book on Courses of Study for Rural Schools, says:

It is hard to place young teachers face to face with a problem which can be solved only by unusually talented persons, a problem of which neither local nor provincial school inspectors, nor the highest educational authority in the State, can tell in what way he may solve it.

In order to obviate this difficulty the establishment of pedagogical university seminaries, with practice schools attached, would be necessary. In these institutions the professors of normal schools and the supervisors of city and rural schools might be professionally prepared. The right to attend them should be granted to teachers of elementary schools if they can prove their capacity for academic study, and if the result of their normal-school training, as well as successful study of at least two foreign languages, would justify admission. Another condition of admission might be a number of years of successful experience in a public school. This last condition should also be required of ministers and philologists, if they apply for supervisors' offices. Not until such conditions are required can it be hoped that persons intrusted with the supervision of schools will become authorities for the teachers of the rural schools. Not until they have gained experience in teaching will they be able to advise the teachers under their charge; and it must be insisted upon that their office should not be a supplementary office, but that they give all their time and power to supervision of schools. If the possibility is open to rural teachers to be promoted to the office of supervisor, it will increase their aspirations and effectually promote the rural schools in general.

(c) With the question of supervision is intimately connected the question of rank. There have been contentions between the rural teachers and principals of graded schools. It is claimed that the teacher of a rural school conducts an entire system, i. e., that he has pupils of all grades, but that his field of activity is narrowed down by the fact that they are all in one room. However, they claim the rank of a principal—a claim that has not been recognized by the authorities.

(d) The position of the rural teacher within the community seems to call for a reform. It has been stated before that the teachers of the ungraded schools come into more frequent and intimate contact with the families of their pupils than the teachers of other schools. They can therefore exert an influence upon the home, resulting in interesting the parents in the work of the school, so that they assist his work, and indirectly the teacher can thus influence home education. He can do so directly by public lectures, "evening gatherings for parents," and



similar entertainments. Not often have teachers time for this kind of public work, because most teachers of ungraded schools are called upon to perform all kinds of nonpedagogical work; they are frequently called upon to do sexton's work and act as organist during church services. Very frequently they are secretaries of the common council, and for all these extra duties they receive little or no pay. If the teacher's time and strength could be concentrated upon his educational duties, it would be a great advantage to him and to the school under his charge; in that case he could do much to enlighten the community on educational questions and become a live factor in the education of the entire community.

(11) *Statistics.*—How important and far-reaching the promotion of the entire education of the people would be, if the system of ungraded schools were fostered in the spirit indicated in the foregoing article, may be seen from the statistics of this kind of schools. The following numbers are taken from the official statistics published by the Government of Prussia in the year 1891. In that year the Kingdom had 16,600 ungraded schools, in which 962,079 children were taught by 15,548 teachers. Of these were 51 ambulatory schools without teachers, and 3 with 2 teachers. This explains the difference between the number of schools and that of teachers. Since the total number of all schools in the Kingdom in that year was 37,742, with 82,746 classes and 71,731 teachers, it is plain that 47 per cent of all the schools were ungraded in which 22 per cent of the total number of teachers taught. Most of these schools were overcrowded. Their normal attendance, placed officially at less than 80 pupils, was found in 13,639 schools with 682,260 children. Of these there were 2,135 schools with fewer than 30 school children. The number of schools with abnormal attendance was 2,906 with 279,819 pupils, and of these 2,079 had between 81 and 100 pupils each, 796 had between 101 and 150, and 31 had even more than 150 pupils. During the last ten years numerous ungraded schools, owing to their overcrowded condition, were changed into schools of two grades, of which each had a half-day's instruction. Though the number of purely ungraded schools was thereby decreased, the number of teachers was not, accordingly, increased. In the year 1882 Prussia had 20,082 ungraded schools with 1,336,404 children with 20,016 teachers. From this it is seen that 61 per cent of the schools were ungraded. No less than 14,453 schools with 744,688 pupils had normal, 5,629 with 595,716 pupils had abnormal attendance; that is to say, more than the required number, fixed at 80. Of the latter, 2,975 had between 81 and 100 children, 796 had between 101 and 150, and 329 had more than 150 children. On the other hand, in 1882 there were only 2,989 schools of two grades with 1 teacher attended by 337,801 children, against 5,878 of such schools attended by 568,235 children in 1891. The change of ungraded schools into schools of two grades with 1 teacher has of course decreased the overcrowding, but this is of questionable benefit. A teacher may find it easier to maintain discipline in two grades than

if the pupils were altogether in one room, but it decreases the time devoted to their instruction to one-half, hence the educational influence of the teacher is considerably lessened by this reduction. In the year 1882 a teacher of a half-day school had, on an average, 113 pupils; in 1891 he still had 96. This arrangement of half-day schools increases the duties of the teacher enormously. In the Kingdom of Saxony, in the principality of Anhalt, and in a few other German States, the half-day school is preferred generally, while purely ungraded schools are found in the Kingdoms of Bavaria and Württemberg, and in the grand duchies of Hesse, Oldenburg, Weimar, Gotha, and Mecklenburg. In Austria the division into half-day schools is performed as soon as the number of pupils rises above 50.

*Literature.*—Until recently the number of books on rural schools was very meager. Zeller's *Lehren der Erfahrung* (Basel, 1827) is very much out of date, also a book entitled *Einrichtungs- und Lehrplan für Dorfschulen* (Berlin, 1752). The latter work gave preference to half-day schools. The noted educators and authors, Diesterweg, Dittes, and Kehr, did not mention the village school at all, or only with passing notice. In recent years the ungraded school has found very much attention in educational literature. The best of the books published are: (1) Heinemann, *Einklassige Volksschule*, Gera, Hofmann, 1827. (2) Pfeifer, *Theorie und Praxis der einklassigen Volksschule*, Gotha, Thienemann, 2 vols., 1887. Both Heinemann and Pfeifer treat the subject with reference to the idea of concentration. (3) Florin, *Methodik der Gesamtschule*, Zürich, Schulthess. He treats organization, instruction, and the utilization of pupil-teachers with much care. (4) *Lehrplan für einfache Volksschulen*, an essay in the twenty-third Yearbook of the Society for Scientific Pedagogy, is worthy of mention.

#### V.—GERMAN OPINIONS ON THE BELL-LANCASTER METHOD OF MUTUAL INSTRUCTION.

##### (1) Schmidt, History of Pedagogy:

The essential features of the Bell-Lancaster or Monitorial Method consists in making the advanced pupils teachers of the beginners and other pupils of lower grades. These "pupil-teachers" teach or transmit only elementary knowledge after rigidly and minutely prescribed schemes, while the teacher, like an overseer in a factory, teaches but little, and chiefly conducts and supervises the action of his monitors. This mode of conducting schools is considered the surest means of gradually exercising the powers of thinking by applying knowledge previously acquired and of fixing facts in the mind by communicating them to others. It fits instruction to the needs of the individual children better by exactly grading them in classes according to their mental advancement. It sharply defines the matter of instruction, arranges it carefully, and divides it into convenient steps, thus educating the powers of the juvenile mind in every direction, for the pupil does not only receive or acquire knowledge, but has constant opportunities for applying new cognitions and newly learned facts for the benefit of others, while in a regular school the children might sit still for whole hours, only occupied with listening, thinking, and answering questions. The real teacher of a Bell-Lancaster school has many chances of observ-

ing his pupils in different positions, thus learning their dispositions, special talents, and aptitudes. Finally, the monitorial system arouses the love of fellow-beings; it generates the consciousness that we are all dependent upon one another. Hence it creates a common feeling in the pupils and pleasure in reciprocal aid and mutual work for the benefit of all. The pupil feels that he does not exist for his own self, but for others and the whole community of which he is an integral part. In opposition to Bell-Lancaster's method, it is claimed (chiefly by Diesterweg) that the subdued voice (necessary in this mode of teaching where several classes are reciting in one room) in reading does not develop the organs of speech, the accent disappears, and thoughtless reading is promoted. Arithmetic becomes purely mechanical, because the young helper can not point out the reason of any process. Penmanship is neglected, since that art depends less upon constant practice than upon taste for symmetry and the beautiful, which taste can only be awakened by sensible and well-directed instruction in correct seeing and imitating. The whole organization of the school tempts the teacher to fall into mechanism. It is true a greater number of children may be set into external action by means of the monitorial system, but not into internal action, yet the latter alone promotes the true aim of the school.

(2) Zschokke<sup>1</sup> (in 1822) said in his book, *Elementary Schools*, on mutual instruction—

Bell's invention must be considered a benefit to the human race, and, in spite of stale talk of ignorant scribblers, mutual instruction will spread more and more in all the nations of the world. Its inner value, proved by experience, will speak for it. It will give to the human race a new form by ennobling the lowest, depraved, and most numerous class of people. This easy, sure, and cheap means of common education of the people will, no doubt, be in general use in all the five continents within a few decades.

The Bell-Lancaster system or method spread with remarkable rapidity. All over England Lancastrian schools sprang up. In 1811 more than 30,000 children were taught in that way in England. In 1814 a society for Great Britain and foreign countries was formed for the establishment of Lancastrian schools. As early as 1806 the method found its way into the United States; in 1810, into Calcutta; in 1813, into Canada and the Cape Colony; in 1814, into Sierra Leone and Sydney, as well as in all European countries, so that in 1813 more than 100,000 children were taught in that way.

(3) Lindner, in his *Encyclopedian Manual*, says:

Indeed, it must be admitted that the idea of mutual instruction was an excellent one, especially for ungraded schools, where the teacher has several grades, that is, pupils of varying age and accomplishments. However, a system of schools based upon this method can be only a makeshift which violates the principle that an "unfinished" (undeveloped) mind can not well instruct others still less developed. Education being both a science and an art, can not well be pursued by young persons who are not even apprentices in the business. If, however, we consider that the ungraded (rural) school is still very numerous (in Austria 53 per cent of all elementary schools are "one-class schools") the monitorial system is not without its merits.

(4) Sanders's *Lexicon of Pedagogy*:

The Bell-Lancaster method was very much overrated in the beginning. It spread over England and a large part of Europe. It was welcomed with great hopes by

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<sup>1</sup> Noted Swiss educator, author, and statesman, 1771-1847.



friends of popular education in states and countries in which elementary education for the people was still in its infancy, as, for instance, in Greece, Spain, and Portugal. Through an enthusiastic report of Colonel von Abramson, in 1819, the Danish King Frederick VI was persuaded to promote Bell and Lancaster's system, and in consequence it found general favor in Denmark, also in the German provinces Schleswig-Holstein (at that time parts of the Kingdom of Denmark and of the German federation). The normal school at Eekernförde was the central seat of the agitation for this system, but here it was materially modified by adapting it to the principles of Pestalozzi. In other German states the system found only occasional support. Diesterweg opposed it with his inimitable critical weapons. Time and experience have brought out the faults and merits of the system. As a substitute for a real school with a true teacher it can never serve. The teacher's personal influence is a "*conditio sine qua non*" for truly educative and formative instruction, even in technical branches, such as writing, drawing, singing, etc. Modern pedagogy has retained the monitorial feature by allowing the oldest and best gifted pupils to teach the lowest grade under the supervision of the teacher, who at the close of the lessons or the day's work revises and corrects his assistant's work. In Prussia this is done in many overcrowded schools, and it is from these monitors, or pupil teachers, that the normal school candidates are chiefly selected. The older pupils who are intrusted with teaching derive much profit from this service, provided always that the teacher keep his school well in hand and supervise their work, so that the individuality of every pupil may be studied by him. In other words, the system works well if the teacher remains the teacher and does not sink to the level of an overseer of mechanical contrivances. In that case the older pupils who act as his assistants gain much knowledge and retain what they are taught.

#### (5) Zerrenner says in his Book of Methods:

Mutual or monitorial instruction is that method, according to which the teacher, if he have pupils varying much in age, classifies his pupils according to their capacity and teaches these pupils together, thus making a number of divisions, one of which he teaches at a time, while the others review and practice what they have been taught, and do it under supervision and with the aid of pupils of an advanced grade. This mode of procedure has been applied in thousands of schools for several years, and has proved most beneficial. Every teacher who has a number of pupils varying much in age and accomplishments should adopt it.

The essential in mutual instruction is:

(a) That the teacher divide all the pupils of his room into two (or three) divisions to facilitate instruction. In primary grades two are sufficient; in schools of more varied accomplishments three divisions seem advisable.

(b) That the teacher grade the matter of instruction in reading, history, and arithmetic in a definite number of steps. In reading, for instance, in 15; in writing, in 10; in arithmetic, in 14 steps, called steps of a course.

(c) That the teacher carefully examine and grade his pupils according to the steps of his course.

(d) That he himself teach in every branch of the course and guide the progress of his pupils from step to step.

(e) That he occupy those divisions not under his immediate care by giving them exercises in review or application of the matter learned.

(f) That in these exercises, also, he divide the pupils according to the steps of the course.

(g) That the supervision and guidance in this work be intrusted in each branch to pupils at least three steps ahead of the division.

(h) That the number of pupils intrusted to such subushers or pupil teachers be not too large (3 to 4 in reading, 6 to 8 in writing, 4 to 6 in arithmetic).

(i) That, as far as practicable, all pupils of the teachers' room be called upon in



the regular course to act as subushers, since the work is very important for their own development.

(j) That the teacher, by keeping a list, make it possible to regulate the activity of his pupil teachers and steadily keep his eye on a good classification of his school. Day or minute books are a necessity.

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## VI.—COURSES OF STUDY FOR PUBLIC ELEMENTARY SCHOOLS IN CENTRAL EUROPE.

### INTRODUCTION.

The National Educational Association has recognized the great importance of the question as to what and how much to teach in the public schools by appointing in subsequent annual meetings committees of inquiry into the courses of study (*a*) for secondary, (*b*) for city elementary, and (*c*) for rural schools. Never in the history of this educational association has a question been treated with more dignity, profound research, and satisfactory results. The reports of the two first-mentioned committees have been published and widely circulated; the third is still in preparation at this writing. The particular problem of finding the relative value of studies has of late agitated the minds of German teachers as well, as is seen by the results of comparison of the courses prescribed for various cities, a copy of which is here offered in English. It is noteworthy that the plans offered in the following sketches show the relative value of the branches expressed in the number of lessons assigned to them. This of course does not consider the personal element, the teacher, but presupposes that the schools are provided with professionally well-prepared teachers who have had a normal school training of from four to six years. This is a feature of the question with which we can not reckon in this country as yet. Although the normal schools here increase in number and attendance from year to year, the profession of teaching is not as yet well defined in the United States, hence much more weight is attached to the externals of public education—the schoolhouses, equipments, devices, and courses of study. This fact will make the following showing from sixteen cities in Germany, Austria, and Switzerland very interesting. They were published in the *Paedagogische Zeitung* of Berlin, attracted much attention, and in a few cases resulted in an adjustment of differences, as indicated in footnotes.

### I. SKETCH OF VARIOUS COURSES IN OPERATION.

Want of familiarity on the part of the American reader with the conditions of German public schools, and the peculiar development they have had during nearly two hundred years of existence, do not permit a comprehensive treatment of the courses of study pursued in German people's schools. Many restrictions are thereby caused. Only essentials can be discussed, and hence it will be best to confine the discussion to typical examples of courses in use. In regard to particulars, it will

be found advisable to examine only the fully developed school organizations—that is, the graded school—because the conditions in question are there best represented, and because these schools are primarily in the position to be serviceable in the intended investigations. In less favorable conditions—that is, in schools not so well graded—the given factors always cause a diminution of work. In the following statement we shall endeavor to answer the two questions:

(1) Is the course of study in German people's schools of such a nature that the lower grades afford a proper foundation for all other educational institutions?

(2) Does the course of study in the upper grades of German people's schools include the branches generally considered necessary, and recognized by professional teachers as essential, to the education of the people?

The answer in substance to the first of these questions is found in the time-tables of the schools. Advanced education recognizes as absolutely essential a knowledge of elementary branches (reading, language, writing, arithmetic) and a good perceptive faculty. To institutions like the intermediate and secondary schools, which, without exception, begin with the elements of different studies, it is more of a drawback than an advantage to begin a number of subjects without bringing any to a definite conclusion. Where the time-table of the lower grades shows that most attention is given to elementary instruction in reading, writing, arithmetic, grammar, object lessons, and reasoning, the people's school may as a rule be accepted as an appropriate foundation for all these institutions. The chief object in presenting the following tables is to show the essential differences of German States in this regard. The tables for the first four or five years alone would be sufficient to show this, but as the significance, extension, and treatment of a number of studies in the upper grades are to be discussed later on the whole course is given at once, to economize space. It is the object also to treat the separate German States as far as can be done in their usual order.

The foundation for the order of study of Prussian people's schools is given in the general regulations of Minister Dr. Falk of the 15th of October, 1872. The general regulations prescribe for graded schools:<sup>1</sup>

|  | Lower grade. | Middle grade. | Upper grade. |
|--|--------------|---------------|--------------|
| Religion .....                             | 4            | 4             | 4            |
| Language .....                             | 11           | 8             | 8            |
| Arithmetic .....                           | 4            | 4             | 4            |
| Geometry .....                             |              |               | 2            |
| History, geography, and nature study ..... |              | 6             | 6-8          |
| Singing .....                              | 1            | 2             | 2            |
| Gymnastics .....                           | 2 [0]        | 2 [0]         | 2 [0]        |
| Drawing .....                              |              | 2             | 2            |
| Female handiwork .....                     | [2]          | [2]           | [2]          |
| Total .....                                | 22           | 28            | 30-32        |

<sup>1</sup> Where there is but one number in a column, the statement applies to both sexes. If the number refers only to boys, a naught is added in brackets. The numbers referring to girls only are inclosed in brackets.

This order has had later corrections by the same authority. By commission of Minister von Gossler (25th of July, 1884) the provincial authorities were empowered to extend religious instruction by one Bible lesson; consequently, to prescribe six and five hours of weekly religious instruction in schools of one grade and several grades, respectively.

The original time-table of the general regulations has not been strictly adhered to in any part of the State. It is, moreover, decidedly obscure. Which years are to be included in each of the three grades it does not state. But as it is decided that if the school has four classes two shall constitute the middle, and with six successive classes two shall cover the ground of one grade, one must presume that in schools of four grades the upper grade begins with the seventh year; in schools of six grades with the fifth year. A wide scope is thus given the teacher to work out his own plan. In the former case, the middle grade embraces four years; in the latter, two; in the former, history, geography, and natural history must be begun in the second year (which has actually been attempted in several instances); in the latter, in the third.

Two typical examples of both extremes in the scales here considered are furnished by the time-table of the people's schools in Charlottenburg and the elementary schools in Wiesbaden.

*People's schools in Charlottenburg.*

|                        | Grades. <i>a</i> |        |       |         |       |       |         |
|------------------------|------------------|--------|-------|---------|-------|-------|---------|
|                        | VI.              | V.     | IV.   | III.    | II.   | Ia.   | Ib.     |
| Religion .....         | 4                | 4      | 4     | 5       | 5     | 5     | 4       |
| Language .....         | 11 [13]          | 10 [9] | 8     | 7       | 7     | 7     | 6       |
| Arithmetic .....       | 4                | 4      | 4     | 4       | 4     | 4     | 4       |
| Geometry .....         |                  |        |       |         | 2 [0] | 2 [0] | 2 [0]   |
| History .....          |                  |        | 2     | 2       | 2     | 2     | 2       |
| Geography .....        |                  |        | 2 [1] | 2       | 2     | 2     | 2       |
| Nature study .....     |                  |        | 2     | 2 [1]   | 4 [3] | 4 [3] | 4 [3]   |
| Singing .....          | 1                | 1      | 2     | 2       | 2     | 2     | 2       |
| Gymnastics .....       | 2 [0]            | 2 [0]  | 2 [0] | 2       | 2     | 2     | 2       |
| Drawing .....          |                  | 1      | 2     | 2       | 2     | 2     | 2       |
| Female handiwork ..... |                  | [3]    | [3]   | [3]     | [3]   | [3]   | [5]     |
| Total .....            | 22               | 22     | 28    | 28 [30] | 32    | 32    | 30 [32] |

*a* The designation of grades in all the time-tables contained in the article is according to the North German custom (the I grade being the highest, even when the reversed designation is made use of). For uniformity's sake, writing and object lessons are always included in language lessons, natural history and science are classed as nature study, and preparatory instruction for geography (study of home and environs) included with geography. Particular features are explained in footnotes.

*Elementary schools in Wiesbaden.*

|                          | Grades. |         |         |         |         |         |         |         |
|--------------------------|---------|---------|---------|---------|---------|---------|---------|---------|
|                          | VIII.   | VII.    | VI.     | V.      | IV.     | III.    | II.     | I.      |
| Religion .....           | 2       | 3       | 3       | 4       | 4       | 4       | 4       | 4       |
| Language .....           | 10      | 9       | 11      | 11      | 10      | 10 [9]  | 9 [8]   | 9 [8]   |
| Arithmetic .....         | 3       | 4       | 4       | 4       | 4       | 4 [31]  | 4 [3]   | 4 [3]   |
| Geometry .....           |         |         |         |         |         | 1 [0]   | 2 [0]   | 2 [0]   |
| History .....            |         |         |         |         | 2       | 2       | 2       | 2       |
| Geography <i>a</i> ..... | 3       | 3       | 3       | 3       | 2       | 2       | 2       | 2       |
| Nature study .....       |         |         |         |         | 2       | 2       | 2       | 2       |
| Singing .....            |         |         | 1       | 2       | 2       | 2       | 2       | 2       |
| Gymnastics .....         |         |         |         |         | 2       | 2       | 2       | 2       |
| Female handiwork .....   |         | [2]     | [3]     | [3]     | [4]     | [4]     | [4]     | [3]     |
| Drawing .....            |         |         |         |         |         |         | 2       | 2       |
| Total .....              | 18      | 19 [21] | 22 [25] | 24 [27] | 28 [32] | 31 [33] | 31 [33] | 31 [32] |

*a* Each year from the first to the fourth has three hours of object lessons and home geography.



The difference is very apparent. If we compare the third and fourth years in both plans we shall see the essential difference between an elementary school and a school occupied from the very start with a wholly unnatural multiplicity of studies, and beginning nearly all the branches included in the people's school curriculum at the same age, when the average faculty of comprehension has not been sufficiently developed.

In the old Prussian provinces, particularly in those east of the Elbe River, schools of six grades predominate; they follow the "General regulations" rather closely. The people's schools in Dantzic, Posen, Breslau, Stettin, and Halle present only unimportant differences. In Dantzic, Stettin, and Halle, history, geography, and natural history are taught in the third year; in Posen and Breslau, instruction in history is deferred until the fourth year. In nearly every instance drawing is begun in the second year; until lately, in Berlin two special drawing lessons were prescribed even for the first year. The present time-table in communal schools in Berlin is as follows:

*Communal schools in Berlin. a*

|                        | Grades. |    |        |         |         |       |
|------------------------|---------|----|--------|---------|---------|-------|
|                        | VI.     | V. | IV.    | III.    | II.     | I.    |
| Religion .....         | 4       | 4  | 4      | 4       | 4       | 4     |
| Language .....         | 11      | 9  | 10 [8] | 8       | 8 [6]   | 8 [6] |
| Arithmetic .....       | 4       | 4  | 4      | 4       | 4       | 4     |
| Geometry .....         |         |    |        | 2 [0]   | 2 [0]   | 3 [0] |
| History .....          |         |    |        | 2       | 2       | 2     |
| Geography .....        |         |    | 2      | 2       | 2       | 2     |
| Nature study .....     |         |    | 2 [0]  | 2       | 2       | 3 [2] |
| Singing .....          | 1       | 1  | 2      | 2       | 2       | 2     |
| Gymnastics .....       | 2       | 2  | 2      | 2       | 2       | 2     |
| Drawing .....          |         | 2  | 2      | 2       | 2       | 2     |
| Female handiwork ..... |         |    | [4]    | [4]     | [6]     | [6]   |
| Total .....            | 22      | 22 | 28     | 30 [32] | 30 [32] | 32    |

a See also the article on "The Elementary Schools in Berlin," published in the Report of the Commissioner of Education for 1893-94, p. 295, where the courses for 1840, 1860, 1873, and 1893 are compared.

The amount of time devoted to female handiwork (formerly eight hours weekly), the early beginning of drawing, the third hour of geometry in the upper grade, and the small number of language lessons in the upper grades of female schools are characteristic of this plan. The model thereby proposed has rarely been followed outside of Berlin. The following table of the people's schools in Halle serves as a type for schools of six grades:

*City people's schools in Halle.*

|                        | Grades. |         |         |         |       |       |
|------------------------|---------|---------|---------|---------|-------|-------|
|                        | VI.     | V.      | IV.     | III.    | II.   | I.    |
| Religion .....         | 4       | 4       | 4       | 4       | 4     | 4     |
| Language .....         | 11      | 10      | 8       | 8       | 8     | 8     |
| Arithmetic .....       | 4       | 4       | 4       | 4       | 4     | 4 [3] |
| Geometry .....         |         |         |         |         | 2 [0] | 2 [0] |
| History .....          |         |         | 2       | 2       | 2     | 2     |
| Geography .....        |         |         | 2       | 2       | 2     | 2     |
| Natural history .....  |         |         | 2       | 2       | 2 [1] | 2     |
| Natural science .....  |         |         |         |         | 2 [1] | 2 [1] |
| Singing .....          | 1       | 1       | 2       | 2       | 2     | 2     |
| Gymnastics .....       | 2 [0]   | 2 [0]   | 2       | 2       | 2     | 2     |
| Drawing .....          |         | 1       | 2       | 2       | 2     | 2     |
| Female handiwork ..... | [2]     | [4]     | [4]     | [4]     | [4]   | [4]   |
| Total .....            | 22      | 22 [24] | 28 [32] | 28 [32] | 32    | 32    |



The time-tables for the people's schools of the new Prussian provinces resemble in general the plan of Wiesbaden more than that of the schools of six grades in the cities just mentioned. The people's schools in Kiel (8 grades) begin only geography with two hours in the third year, history and nature study with one hour in the fourth year. In Altona the three lower grades have only three hours of religion. In Osnabrück nature study begins with one hour in the third year, geography is introduced in the fourth, history in the fifth, and geometry in the sixth year.

The people's schools of Bavaria have no common order of study. That of Munich seems most characteristic. It reflects the purpose of the general primary school most clearly, and in the upper grade endeavors to satisfy the higher claims on public instruction, as far as can be possible within the limits of a seven-years compulsory attendance. For comparison the order of study in Augsburg is placed in juxtaposition. The course in Nuremberg is about a medium between the two, whilst that at Würzburg differs widely in devoting a great many hours to religious instruction.

*Day schools in Munich.*

|                        | Grades. |         |         |         |       |       |       |
|------------------------|---------|---------|---------|---------|-------|-------|-------|
|                        | VII.    | VI.     | V.      | IV.     | III.  | II.   | I.    |
| Religion .....         | 2       | 2       | 3       | 3       | 3     | 3     | 2     |
| Language .....         | 10      | 12 [12] | 12 [10] | 12 [10] | 8 [7] | 8 [7] | 8 [7] |
| Arithmetic .....       | 6       | 6       | 6       | 6       | 6     | 6     | 6     |
| History .....          |         |         |         |         |       |       | 2     |
| Geography .....        |         |         | 2       | 2       | 3     | 3     | 2 [3] |
| Nature study .....     |         |         |         |         | 2     | 4 [3] | 4 [3] |
| Singing .....          | 1       | 1       | 1       | 1       | 1     | 1     | 1     |
| Gymnastics .....       | 2       | 2       | 2       | 2       | 2     | 2     | 2     |
| Drawing .....          |         |         |         |         | 4 [2] | 3 [2] | 3 [2] |
| Female handiwork ..... | [2]     | [2]     | [3]     | [3]     | [4]   | [3]   | [4]   |
| Total .....            | 21 [23] | 23 [25] | 26 [27] | 26 [27] | 29    | 30    | 30    |

*People's schools in Augsburg.*

|                        | Grades. |         |         |         |         |         |         |
|------------------------|---------|---------|---------|---------|---------|---------|---------|
|                        | VII.    | VI.     | V.      | IV.     | III.    | II.     | I.      |
| Religion .....         | 3       | 3       | 3       | 4       | 4       | 4       | 4       |
| Language .....         | 12      | 12      | 10      | 10 [9]  | 10 [9]  | 10 [9]  | 10 [9]  |
| Arithmetic .....       | 6       | 6       | 6       | 6 [5]   | 6 [5]   | 6 [5]   | 6 [5]   |
| History .....          |         |         |         | 1       | 1       | 1       | 1       |
| Geography .....        |         |         |         | 1       | 1       | 1       | 1       |
| Nature study .....     |         |         |         | 2       | 2       | 2       | 2       |
| Singing .....          | 1       | 1       | 1       | 1       | 1       | 1       | 1       |
| Gymnastics .....       |         |         | 2       | 2       | 2       | 2       | 2       |
| Drawing .....          |         | 1       | 1       | 2       | 2       | 2       | 2       |
| Female handiwork ..... | [2]     | [2]     | [2]     | [3]     | [3]     | [3]     | [3]     |
| Total .....            | 22 [24] | 23 [25] | 25 [27] | 29 [30] | 29 [30] | 29 [30] | 29 [30] |

The schools of the Kingdom of Wurtemberg are very unlike those of its neighboring state. Munich and Stuttgart in this respect present

the greatest extremes to be found in German city schools. This the following table proves without further explanation:

*People's schools in Stuttgart.*

|  | Grades. |       |       |        |        |        |        |
|--|---------|-------|-------|--------|--------|--------|--------|
|  | VII.    | VI.   | V.    | IV.    | III.   | II.    | I.     |
| Religion .....                             | 4½      | 4½    | 4½    | 6      | 6      | 7      | 6      |
| Language .....                             | 10½     | 10½   | 13    | 9½     | 9½     | 8½     | 9½     |
| Arithmetic .....                           | 3       | 4     | 5     | 5      | 5      | 5      | 5      |
| History, geography, and nature study ..... | 1       | 1     | 1     | 4      | 4      | 4      | 4      |
| Singing .....                              | 1       | 1     | 1½    | 1½     | 1½     | 1½     | 1½     |
| Drawing .....                              |         |       |       |        | 2 [0]  | 2 [0]  | 2 [0]  |
| Gymnastics .....                           |         |       |       | 1½     | 1½     | 1½     | 1½     |
| Female handiwork .....                     | [4]     | [4]   | [4]   | [4]    | [4]    | [4]    | [4]    |
| Assistance .....                           | 6 [2]   | 5 [1] | 5 [1] | 2½ [2] | 2½ [2] | 2½ [2] | 2½ [2] |
| Total .....                                | 26      | 26    | 30    | 30     | 32     | 32     | 32     |

The following regulations apply to country schools throughout the Kingdom of Wurtemberg. With an aggregate number of twenty-six hours per week, one-third must be devoted to religion, including memorizing hymns and Bible texts. The remainder, as well as all hours over twenty-six, are devoted to other studies in the proportion of three-sevenths to language, two-sevenths to arithmetic and mensuration, and two-sevenths to history, geography, nature study, and singing. Teachers for a long time have endeavored to reduce the one-third devoted to the study of religion, but without apparent success.

In Saxony and the Thuringian States under its direct influence there exist two or three kinds of people's schools. We shall here consider only the lower people's or district schools and the burgher schools, which in many places pursue the same course as intermediate people's schools or advanced schools elsewhere. In Leipsic the advanced and district male schools follow exactly the same course; the female schools present few differences. In Dresden the deviations are greater.

*District schools in Dresden.*

|   | Grades.               |                      |         |       |         |         |       |       |
|---|-----------------------|----------------------|---------|-------|---------|---------|-------|-------|
|   | VIII.                 | VII.                 | VI.     | V.    | IV.     | III.    | II.   | I.    |
| Religion .....                          | 4 times, 40 minutes.  | As in VIII.          | 3       | 3     | 4       | 4       | 4     | 4     |
| Language .....                          | 10 times, 30 minutes. | .....do .....        | 10      | 9     | 9       | 8       | 7     | 6     |
| Arithmetic .....                        | 8 times, 30 minutes.  | 6 times, 40 minutes. | 4       | 4     | 4       | 4       | 4 [3] | 4 [3] |
| Geometry .....                          |                       |                      |         |       |         | 1       | 2     | 2     |
| History .....                           |                       |                      |         |       | 2 [1]   | 2       | 2     | 2     |
| Geography .....                         | 4 times, 40 minutes.  | 3 times, 40 minutes. | 2       | 2     | 2       | 2       | 2     | 2     |
| Natural history and natural philosophy. | Object lessons        | Object lessons       |         | 2 [1] | 2       | 3       | 3     | 3     |
| Singing .....                           |                       |                      | 1       | 2 [1] | 1       | 1       | 2 [1] | 1 [2] |
| Gymnastics .....                        |                       |                      |         | 2 [0] | 2       | 2       | 2     | 2     |
| Drawing .....                           |                       |                      |         |       | 2 [1]   | 2 [1]   | 2 [1] | 4 [2] |
| French (optional) .....                 |                       |                      |         |       |         |         |       |       |
| Female handiwork .....                  |                       |                      | [2]     | [4]   | [4]     | [4]     | [4]   | [4]   |
| Total .....                             | 18                    | 18 [20]              | 20 [24] | 24    | 28 [30] | 28 [30] | 30    | 30    |

In the first year of burgher or advanced schools and district or elementary schools in Leipsic, the sessions number only sixteen hours per week in the first four years of elementary schools; in Zwickau they number twelve, fourteen, eighteen, twenty-two (girls twenty-three) hours, and in advanced schools twelve, sixteen, twenty-two, twenty-four (girls twenty-six) hours. The conditions prevailing in the Thuringian States resemble in essential points those of Saxony; in some States, as in Weimar, the Prussian model has been followed.

The special features of the course of study in the people's schools in Baden are officially defined. Elementary embraces sixteen, advanced instruction twenty-six to thirty hours. In the latter case, three are devoted to religion, nine to ten to language, four to five to arithmetic, two to singing, six to seven to history, geography, and nature study. Communities are allowed to establish advanced people's schools in place of or in connection with the people's schools required by law. Mannheim furnishes an instance of the first case. The city besides supports advanced people's and girls' schools, likewise designated "advanced people's schools"; in them, however, French is a compulsory study, whereas in the other people's schools foreign languages are optional.

*Advanced people's schools in Mannheim.*

|                        | Grades. |      |         |         |         |         |         |         |
|------------------------|---------|------|---------|---------|---------|---------|---------|---------|
|                        | VIII.   | VII. | VI.     | V.      | IV.     | III.    | II.     | I.      |
| Religion .....         | 3       | 3    | 3       | 3       | 3       | 3       | 3       | 3       |
| Language .....         | 9½      | 11½  | 12 [9]  | 13 [9½] | 11      | 11      | 8 [9]   | 7 [9]   |
| Arithmetic .....       | 6       | 6    | 6       | 5       | 4       | 4       | 4       | 4       |
| Geometry .....         |         |      |         |         | 1 [0]   | 1       | 2 [1]   | 2 [1]   |
| History .....          |         |      |         | 1 [0]   | 2       | 2       | 2       | 2       |
| Geography .....        |         |      | 2 [1]   | 2 [1½]  | 2       | 2       | 2       | 2       |
| Nature study .....     |         |      | 1       | 1       | 1       | 1       | 2       | 2       |
| Singing .....          |         |      | 2 [1]   | 1       | 1       | 1       | 1       | 1       |
| Gymnastics .....       |         |      | 2 [0]   | 2 [0]   | 2 [1]   | 2 [1]   | 2 [1]   | 2       |
| Drawing .....          |         |      |         |         | 1 [2]   | 1       | 4 [2]   | 4 [2]   |
| Female handiwork ..... |         |      | [3]     | [4]     | [4]     | [4]     | [4]     | [4]     |
| Total .....            | 19½     | 21½  | 28 [24] | 28 [25] | 28 [31] | 28 [31] | 30 [31] | 29 [32] |

The course of study in Hussia is almost identical with that of Prussia prescribed in the "General regulations," particularly in the amount of time given to religion and in the early special study of history, geography, and nature study. But a radical deviation in the Hessian regulation prescribes fewer hours for the first two years, and divides graded schools into four instead of three grades, thus paving the way for schools of eight grades.

*People's schools in Hussia.*

|  | Grades.         |                  |       |       |       |
|--|-----------------|------------------|-------|-------|-------|
|  | IV.             |                  | III.  | II.   | I.    |
|  | First division. | Second division. |       |       |       |
| Religion .....                             | 2               | 2                | 4     | 4     | 4     |
| Language .....                             | 8               | 10               | 9     | 8     | 8     |
| Arithmetic .....                           | 2               | 4                | 4     | 4     | 4     |
| Geometry .....                             |                 |                  |       |       | 2     |
| History, geography, and nature study ..... |                 | 2                | 6     | 6     | 7     |
| Singing .....                              |                 | 1                | 2     | 2     | 2     |
| Gymnastics .....                           |                 | 1 [0]            | 2 [0] | 2 [0] | 2 [0] |
| Drawing .....                              |                 |                  |       | 2     | 2     |
| Female handiwork .....                     |                 | [1]              | [2]   | [2]   | [2]   |
| Total .....                                | 12              | 20               | 27    | 28    | 31    |

The time tables for people's schools in Worms, Mayence, and Darmstadt show that this course is far from being strictly followed.

*People's schools in Worms.*

|                        | Grades. |         |       |       |         |         |       |       |
|------------------------|---------|---------|-------|-------|---------|---------|-------|-------|
|                        | VIII.   | VII.    | VI.   | V.    | IV.     | III.    | II.   | I.    |
| Religion .....         | 2       | 2       | 4     | 4     | 4       | 4       | 4     | 4     |
| Language .....         | 15      | 14      | 9     | 9     | 8       | 8       | 8     | 8     |
| Arithmetic .....       | 5       | 5       | 4     | 4     | 4       | 4       | 4     | 4     |
| Geometry .....         |         |         |       |       |         |         | 2 [4] | 2 [4] |
| History .....          |         |         | 2     | 2     | 2       | 2       | 2     | 2     |
| Geography .....        |         |         | 2     | 2     | 2       | 2       | 2     | 2     |
| Nature study .....     |         |         | 2     | 2     | 2       | 2       | 3     | 3     |
| Singing .....          |         | 1       | 2     | 2     | 2       | 2       | 2     | 2     |
| Gymnastics .....       |         | 1 [0]   | 2 [0] | 2 [0] | 2       | 2       | 2     | 2     |
| Drawing .....          |         |         |       |       | 2       | 2       | 2     | 2     |
| Female handiwork ..... | [2]     | [2]     | [2]   | [2]   | [2]     | [2]     | [2]   | [2]   |
| Total .....            | 22 [24] | 23 [24] | 27    | 27    | 28 [30] | 28 [30] | 31    | 31    |

In Mayence the eighth and seventh grades have each three, the other grades each five hours of religion.

Schools in the middle and minor States of north Germany incline to those of Prussia. The conditions of the city schools of the two Mecklenburgs are identical with those of the provinces east of the Elbe River. Rural schools are considered only the beginnings of educational institutions. Oldenburg, the capital, has schools of eight grades; Bremen and Lübeck follow the example of the new provinces of Prussia. In Brunswick Saxon influences prevail. We select only three schools from the different States.

*People's schools in Zerbst (Anhalt).*

|                        | Grades. |         |         |         |         |         |
|------------------------|---------|---------|---------|---------|---------|---------|
|                        | VI.     | V.      | IV.     | III.    | II.     | I.      |
| Religion .....         | 1½      | 2       | 2       | 3       | 4       | 4       |
| Language .....         | 8       | 8       | 8       | 9       | 8       | 8       |
| Arithmetic .....       | 3       | 4       | 4       | 4       | 3       | 3       |
| Geography .....        | 1½      | 2       | 2       | 2       | 2       | 2       |
| History .....          |         |         |         |         | 2       | 2       |
| Nature study .....     |         |         |         | 1       | 2       | 2       |
| Geometry .....         |         |         |         |         |         |         |
| Singing .....          | 1       | 1       | 1       | 1       | 2       | 2       |
| Drawing .....          |         |         |         |         | 1       | 1       |
| Gymnastics .....       |         |         |         |         |         |         |
| Female handiwork ..... | [4]     | [4]     | [4]     | [4]     | [4]     | [4]     |
| Total .....            | 15 [19] | 17 [21] | 17 [21] | 20 [24] | 24 [28] | 24 [28] |

Both sexes are instructed together from the sixth to the third grade; in the second and first, or upper grades, they are separated.

*City people's schools in Lemgo (Lippe).*

|  | Grades. |    |     |      |     |    |
|--|---------|----|-----|------|-----|----|
|  | VI.     | V. | IV. | III. | II. | I. |
| Religion .....                         | 2       | 2  | 4   | 5    | 6   | 6  |
| Language .....                         | 7½      | 7½ | 12  | 10   | 9   | 7  |
| Arithmetic .....                       | 4       | 4  | 6   | 4    | 4   | 4  |
| Geometry .....                         |         |    |     |      |     | 1  |
| History, geography, nature study ..... |         |    | 2   | 5    | 5   | 6  |
| Singing .....                          | 1½      | 1½ | 2   | 2    | 2   | 2  |
| Gymnastics .....                       |         |    |     | 2    | 2   | 2  |
| Drawing .....                          |         |    |     | 1    | 1   | 1  |
| Fruit-tree cultivation .....           |         |    |     |      | 1   | 1  |
| Total .....                            | 15      | 15 | 26  | 29   | 30  | 30 |



*People's schools in Hamburg. a*

|                       | Grades. |       |       |        |       |       |       |
|-----------------------|---------|-------|-------|--------|-------|-------|-------|
|                       | VII.    | VI.   | V.    | IV.    | III.  | II.   | I.    |
| Religion.....         | 2       | 2     | 2     | 3      | 3     | 2     | 2     |
| Language.....         | 13      | 13    | 10    | 11 [9] | 7     | 6 [7] | 6     |
| Arithmetic.....       | 5 [4]   | 5 [4] | 5 [4] | 5 [3]  | 4     | 4 [3] | 4     |
| Geometry.....         |         |       |       | 1 [0]  | 2 [0] | 2 [0] | 2 [0] |
| History.....          |         |       | 1     | 2      | 2     | 2     | 2     |
| Geography.....        |         |       | 2     | 2      | 2     | 2     | 2     |
| Nature study.....     |         |       | 2     | 2      | 2     | 4     | 5 [3] |
| Singing.....          | 2 [1]   | 2 [1] | 2 [1] | 2      | 1 [2] | 1 [2] | 1 [2] |
| Gymnastics.....       | 2 [0]   | 2 [0] | 2 [0] | 2      | 2     | 2     | 2     |
| Drawing.....          | 2       | 2     | 2     | 2 [1]  | 2     | 2     | 2     |
| English.....          |         |       |       |        | 5 [0] | 5 [0] | 4 [0] |
| Female handiwork..... | [4]     | [4]   | [4]   | [6]    | [6]   | [6]   | [6]   |
| Total.....            | 26      | 26    | 28    | 32     | 32    | 32    | 32    |

a The school board of Hanover has prepared a course in which the following radical changes are proposed: The seventh grade should receive eighteen hours in summer and twenty in winter; the sixth grade twenty-four, the fourth grade thirty. The other grades retain the same number. Some studies suffer the following alterations: Religion is not studied in the seventh grade and is limited to two hours in the other grades; language is much further advanced; female handiwork is limited in the intermediate and omitted from the two lower grades.

The people's schools of Alsace and Lorraine differ widely. Mülhausen has schools of eight, Strassburg of six, five, and four grades. Particulars may be omitted, since they would scarcely enhance the value of this statement.

The purpose of people's schools and the arrangement of studies in Austria and in some Swiss cantons appears desirable. Furthermore, from an American point of view, their time-tables correspond better to the purpose of common schools than most German tables presented in the foregoing.

*People's schools in Vienna. a*

|                            | Grades.                      |         |       |         |         |                      |         |         |
|----------------------------|------------------------------|---------|-------|---------|---------|----------------------|---------|---------|
|                            | (a) Common people's schools. |         |       |         |         | (b) Burgher schools. |         |         |
|                            | V.                           | IV.     | III.  | II.     | I.      | III.                 | II.     | I.      |
| Religion.....              | 1                            | 1       | 2     | 2       | 2       | 2                    | 2       | 2       |
| Recitation.....            | 12                           | 12      | 11    | 11 [8]  | 8 [6]   | 6                    | 6       | 4       |
| Arithmetic.....            | 3                            | 4       | 4 [3] | 4 [3]   | 4 [3]   | 4 [3]                | 4 [3]   | 4 [3]   |
| Nature study.....          |                              |         | 1     | 1       | 3       | 4 [2]                | 5 [2]   | 4 [3]   |
| Geography and history..... |                              |         | 1     | 2       | 3       | 3                    | 3       | 3       |
| Geometry.....              |                              |         |       |         |         | 3 [1]                | 3 [1]   | 3 [7]   |
| Drawing and outlining..... |                              | 1       | 1     | 2       | 3       | 4 [3]                | 4 [3]   | 5 [3]   |
| Singing.....               | 1                            | 1       | 1     | 1       | 1       | 1                    | 1       | 1       |
| Gymnastics.....            | 1 [0]                        | 1 [0]   | 2 [0] | 2 [0]   | 2 [0]   | 2                    | 2       | 2       |
| Female handiwork.....      | [3]                          | [3]     | [3]   | [3]     | [3]     | [4]                  | [4]     | [6]     |
| Total.....                 | 18 [20]                      | 20 [22] | 23    | 25 [24] | 26 [24] | 29 [27]              | 30 [27] | 30 [28] |

a Further information is given by the short but excellent pamphlet "On management of people's and continuation schools in Leipsic and Vienna," which is a report of an inspection undertaken by order of the Diesterweg Institute by H. Vietz, Frankfort on the Main, Moritz Diesterweg, 1893.

*People's schools in Basel. a*

|                       | Grades.         |         |         |         |                 |        |         |         |
|-----------------------|-----------------|---------|---------|---------|-----------------|--------|---------|---------|
|                       | Primary school. |         |         |         | Grammar school. |        |         |         |
|                       | IV.             | III.    | II.     | I.      | IV.             | III.   | II.     | I.      |
| Religion.....         | 3 [2]           | 3 [2]   | 2       | 2       | 2               | 2      | 6 [5]   | 6 [5]   |
| Language.....         | 12 [11]         | 14 [12] | 14 [12] | 13      | 8 [6]           | 7 [5]  | 6 [5]   | 6 [5]   |
| French.....           |                 |         |         |         | 5 [4]           | 6      | 6       | 6       |
| Arithmetic.....       | 4               | 5       | 5       | 5       | 5 [4]           | 4      | 4       | 3 [4]   |
| Geometry.....         |                 |         |         |         |                 | 1 [0]  | 2 [0]   | 3 [0]   |
| History.....          |                 |         |         |         | 1½ [0]          | 1½ [1] | 2       | 2½ [2]  |
| Geography.....        |                 |         |         |         | 1½ [2]          | 1½ [2] | 2       | 2½ [2]  |
| Nature study.....     |                 |         |         |         | [1]             | [1]    | 2       | 3 [2]   |
| Drawing.....          |                 |         |         | 2       | 2               | 2      | 2       | 2       |
| Singing.....          | 1               | 1       | 2       | 2       | 2               | 2      | 2 [1]   | [1]     |
| Gymnastics.....       |                 |         | 2       | 2       | 2               | 2      | 2       | 2       |
| Female handiwork..... | [4]             | [4]     | [4]     | [4]     | [5]             | [5]    | [6]     | [6]     |
| Total.....            | 20 [22]         | 23 [24] | 25 [27] | 26 [30] | 29 [30]         | 30     | 30 [32] | 30 [32] |

*a* Further information is given in *People's Schools and Kindergartens in Switzerland*, a report of a journey of inspection to Berne, Zurich, and Basel by order of the Diesterweg Institute in Berlin, by Ernst Ewald, city teacher (privately printed): Berlin, 1892.

The foregoing tables invite comparison in very different directions. The aim of education in the lower grades is defined by the earlier or later introduction of history, geography, and nature study, and by the latitude given to religious instruction. As the addition of new studies signifies in most cases the existence of a course in the sciences, it is of importance that the beginning and extent of these studies be for some schools presented synoptically in the introduction. This has been attempted in the following table, which, however, only includes schools for boys.<sup>1</sup>

*Beginning and extent of so-called realistic studies (history, geography, natural history, and science) in German people's schools.*

|                             | First year. (a) | Second year. | Third year. | Fourth year. | Fifth year. | Sixth year. | Seventh year. | Eighth year. |
|-----------------------------|-----------------|--------------|-------------|--------------|-------------|-------------|---------------|--------------|
| IN GERMANY.                 |                 |              |             |              |             |             |               |              |
| Dantzic.....                |                 |              | 6           | 6            | 8           | 8           | 8             | 8            |
| Berlin.....                 |                 |              | 4           | 6            | 6           | 7           | 7             | 7            |
| Kiel.....                   |                 |              | 2           | 4            | 5           | 8           | 8             | 8            |
| Hanover.....                |                 |              | 2           | 5            | 6           | 8           | 7             | 7            |
| Osnabruck.....              |                 |              | 1           | 4            | 6           | 8           | 8             | 8            |
| Wiesbaden.....              |                 |              | 3           | 3            | 6           | 6           | 6             | 6            |
| Munich.....                 |                 |              | 2           | 2            | 5           | 7           | 8             | -----        |
| Augsburg.....               |                 |              | 2           | 4            | 4           | 4           | 4             | -----        |
| Stuttgart.....              | 1               | 1            | 1           | 4            | 4           | 4           | 4             | 4            |
| Mülhausen.....              |                 |              | 4           | 6            | 6           | 7           | 7             | 7            |
| Dresden.....                |                 |              | 2           | 4            | 6           | 6           | 7             | 7            |
| Lübeck.....                 |                 |              | -----       | 2            | 3           | 5           | 6             | 6            |
| Mannheim.....               |                 |              | 3           | 4            | 5           | 5           | 6             | 6            |
| Worms.....                  |                 |              | 6           | 6            | 6           | 6           | 7             | 7            |
| Oldenburg.....              |                 |              | 1           | 4            | 5           | 6           | 8             | 8            |
| Altenburg.....              |                 |              | 6           | 6            | 6           | 7           | 7             | 7            |
| Hamburg.....                |                 |              | 5           | 6            | 6           | 8           | 9             | 9            |
| IN AUSTRIA AND SWITZERLAND. |                 |              |             |              |             |             |               |              |
| Vienna.....                 |                 |              | 2           | 3            | 6           | 7           | 8             | 9            |
| Basel.....                  |                 |              | 1           | 1            | 3           | 4           | 6             | 8            |
| Zurich.....                 |                 |              | -----       | 4            | 4           | 4           | 6-7           | 6-7          |

*a* In this and the following table the years of the course are mentioned, since the grades, not being uniform, would give no adequate idea. In schools of six grades the grade corresponds to the period from the sixth to the eighth year; in schools of seven grades, to the period including the seventh and eighth years. The tables, arranged accordingly, will speak for themselves. The numbers in the columns signify the number of hours per week.

<sup>1</sup>The study of home geography, when preparatory to geography, is included, while elementary object lessons are not included.

*Number of hours devoted to religion in German people's schools.*

|                                     | First<br>year. | Second<br>year. | Third<br>year. | Fourth<br>year. | Fifth<br>year. | Sixth<br>year. | Seventh<br>year. | Eighth<br>year. |
|-------------------------------------|----------------|-----------------|----------------|-----------------|----------------|----------------|------------------|-----------------|
| IN GERMANY.                         |                |                 |                |                 |                |                |                  |                 |
| Berlin <i>a</i> .....               | 4              | 4               | 4              | 4               | 4              | 4              | 4                | 4               |
| Altona.....                         | 3              | 3               | 3              | 4               | 4              | 4              | 4                | 4               |
| Hanover.....                        | 3              | 4               | 4              | 4               | 4              | 4              | 4                | 4               |
| Wiesbaden.....                      | 2              | 3               | 3              | 4               | 4              | 4              | 4                | 4               |
| Gladenbach (Wiesbaden).....         | 2              | 4               | 4              | 4               | 4              | 4              | 4                | 4               |
| Brobrick (Wiesbaden) <i>b</i> ..... | 4              | 4               | 4              | 4               | 5              | 5              | 5                | 5               |
| Hagen (Westphalia).....             | 4              | 4               | 5              | 5               | 5              | 5              | 5                | 5               |
| Nuremberg.....                      | 2              | 2               | 2              | 3               | 3              | 3              | 2                | -----           |
| Augsburg.....                       | 3              | 3               | 3              | 4               | 4              | 4              | 4                | -----           |
| Stuttgart.....                      | 4½             | 4½              | 4½             | 6               | 6              | 7              | 6                | 6               |
| Dresden.....                        | 2½             | 2½              | 3              | 3               | 4              | 4              | 4                | 4               |
| Leipzig <i>c</i> .....              | 2              | 2               | 4              | 4               | 4              | 4              | 4                | 4               |
| Zwickau <i>c</i> .....              | -----          | [2]             | 2              | 3               | 4              | 4              | 4                | 4               |
| Mannheim <i>d</i> .....             | 3              | 3               | 3              | 3               | 3              | 3              | 3                | 3               |
| Darmstadt <i>e</i> .....            | 2              | 2               | 4              | 4               | 4              | 4              | 4                | 4               |
| Mayence.....                        | 3              | 3               | 5              | 5               | 5              | 5              | 5                | 5               |
| Parchim (Mecklenburg).....          | 3              | 4               | 4              | 4               | 5              | 5              | 5                | 5               |
| Oldenburg.....                      | 1              | 2               | 2 [3]          | 3               | 3              | 3              | 3                | 3               |
| Brunswick.....                      | 3              | 3               | 3              | 3               | 4              | 4              | 3                | 3               |
| Meiningen.....                      | 2              | 3 [2]           | 4              | 4               | 4              | 4              | 4                | 4               |
| Altenburg.....                      | 2              | 3               | 4              | 4               | 4              | 4              | 4                | 4               |
| Arnstadt.....                       | 2              | 2               | 3              | 4               | 5              | 6              | 6                | 6               |
| Zerbst.....                         | 1½             | 2               | 2              | 3               | 4              | 4              | 4                | 4               |
| Lübeck.....                         | 2              | 2               | 2              | 2               | 3              | 4              | 4                | 4               |
| Hamburg.....                        | 2              | 2               | 2              | 3               | 3              | 2              | 2                | 2               |
| Lemgo.....                          | 2              | 2               | 4              | 5               | 6              | 6              | 6                | 6               |
| Mülhausen.....                      | 3              | 3               | 4              | 4               | 4              | 3              | 3                | 3               |
| Munich.....                         | 2              | 2               | 3              | 3               | 3              | 3              | 2                | -----           |
| IN AUSTRIA AND SWITZER-<br>LAND.    |                |                 |                |                 |                |                |                  |                 |
| Vienna.....                         | 1              | 1               | 2              | 2               | 2              | 2              | 2                | 2               |
| Basel.....                          | 3 [2]          | 3 [2]           | 2              | 2               | 2              | 2              | -----            | -----           |
| Zurich.....                         | 2              | 2               | 2              | 2               | 2              | 2              | 2                | 2               |

*a* The same in Danzig, Stettin, Posen, Breslau, Halle, Kiel, Osnabrück (Protestant schools), Bielefeld, Cassel, New Brandenburg, and Mecklenburg-Strelitz.

*b* The same in Duisburg.

*c* In Leipzig religion begins in the second quarter of the first year; in Zwickau religious instruction is prescribed for either sex; and in the second year none for boys. Bible history is commenced with object lessons.

*d* Like those in Prussia, the schools of Mannheim have only two hours for religion, choral singing is included in religion and omitted from singing.

*e* The same in Worms.

A second factor of paramount influence in the plan or course of study, as the foregoing examples show, is religious instruction. There is a great difference in the fact whether people's schools have six or seven hours of religion in the upper grade or two, as in Munich and Hamburg, or whether it be omitted altogether, as in Basel. The foregoing arrangement in form of a table will not be without value in the explanation of this point in the discussion following later on.

Whoever examines this table will be convinced that opinions on the subject of the amount of necessary religious instruction in the German Empire greatly vary. As far as it affects the subject a thoroughly frank explanation of this point is therefore permissible without provoking unfavorable criticism. The following table (p. 417) shows that preparatory departments of intermediate and secondary schools for girls essentially differ in this as in many other points, although the true cause may not be found in the facts themselves.

*Course of advanced female schools in Prussia.*

|                        | Lower grades. |       |      | Intermediate grades. |    |     | Upper grades. |     |    |
|------------------------|---------------|-------|------|----------------------|----|-----|---------------|-----|----|
|                        | IX.           | VIII. | VII. | VI.                  | V. | IV. | III.          | II. | I. |
| Religion .....         | 3             | 3     | 3    | 3                    | 3  | 3   | 2             | 2   | 2  |
| Language .....         | 10            | 9     | 8    | 5                    | 5  | 5   | 4             | 4   | 4  |
| French .....           |               |       |      | 5                    | 5  | 5   | 4             | 4   | 4  |
| English .....          |               |       |      |                      |    |     | 4             | 4   | 4  |
| Arithmetic .....       | 3             | 3     | 3    | 3                    | 3  | 3   | 2             | 2   | 2  |
| History .....          |               |       |      |                      | 2  | 2   | 2             | 2   | 2  |
| Geography .....        |               |       | 2    | 2                    | 2  | 2   | 2             | 2   | 2  |
| Natural science .....  |               |       |      | 2                    | 2  | 2   | 2             | 2   | 2  |
| Drawing .....          |               |       |      |                      |    | 2   | 2             | 2   | 2  |
| Writing .....          |               | 3     | 2    | 2                    | 2  |     |               |     |    |
| Female handiwork ..... |               |       | 2    | 2                    | 2  | 2   | 2             | 2   | 2  |
| Singing .....          |               |       |      | 2                    | 2  | 2   | 2             | 2   | 2  |
| Gymnastics .....       | 2             | 2     | 2    | 2                    | 2  | 2   | 2             | 2   | 2  |
| Total .....            | 18            | 20    | 22   | 28                   | 30 | 30  | 30            | 30  | 30 |

For the purpose of comparison with people's schools the lower grades suffice. As a rule, only two hours of religion are prescribed for preparatory classes of secondary schools for boys. The entire number of hours varies between sixteen and twenty-two per week. The upper grade very rarely has more. The course of intermediate schools prescribed by Minister Dr. Falk allows three hours of religion for the three lower and two for the three upper grades. The study of home geography is added to elementary branches only in the third year. History and nature study are reserved for the fourth year. Why are other regulations in existence for people's schools? Or rather, is it beneficial to people's schools to differ so widely from the institutions for wealthier strata of society?

In the next article it will be shown how and to what extent the demands of reform in the upper grades of people's schools are found realized in the courses of study of secondary institutions. This would seem an unfailing test to Americans who naturally consider the secondary school as building on the results of the lower schools.

## II. THE DEMANDS OF THE TIME AND THE COURSE OF STUDY.

The second question is: Does the course of study in the upper grade of people's schools include those branches generally considered necessary and recognized by professional teachers as essential to the education of the people?

Official regulations and general orders fail to give a satisfactory reply to this question. The previous pages have shown how the purpose of people's schools is understood in most German States, and by means of what studies they endeavor to attain the end in view. No Prussian law has reference to the subject indicated in the second question. In sketching the actual conditions we shall often meet unexpected facts face to face.

In regard to modern demands the attitude of the Prussian department of public instruction has, in general, been one of reserve. No



one knows the opinion of the central authority on public and private instruction in political economy or its position toward the study of the constitution and law. We look in vain for any reference to the matter in the numerous directions issued annually by the minister of instruction. In view of the fact that political economy is being generally introduced, a text-book for instruction in that branch for use in normal schools would be desirable. The department has, however, defined its position plainly and distinctly in reference to the one subject of domestic science or economy. In a decree of the 18th of January, 1893, Dr. Bosse, minister of public instruction, emphasizes the fact that a perceptible restriction of other studies in favor of domestic science is receiving careful consideration, but authorizes a shortening of the time of the other lessons by two hours a week. In an order of the 9th of March, 1894, the high educational importance of domestic science is likewise recognized; but in principle the study is referred to obligatory continuation schools, which do not exist for girls in Prussia. This order gives domestic science as well as manual training for boys an independent position outside of school. This standpoint is confirmed in the following words:

Even though I fully recognize the educational value of such efforts as are manifested in manual training and domestic science, and which are directed to excite and develop the mind and aptitude of youth for practical pursuits, and though I am willing and ready to promote the establishment for that purpose by appropriations in keeping with available funds, I must nevertheless insist upon it that the people's schools suffer no loss and apply their entire time in enabling youth to acquire on the basis of valuable knowledge the moral and religious education which the success of their later practical occupations demands.

In this order the minister discountenances their introduction into the school course and relegates them to free afternoons. It is further recommended to exclude theoretical instructions in nature study, computation of prices, etc., from domestic science and combine them with the appropriate disciplinary studies. In a late order of the 10th of February, 1895, provoked by the introduction of domestic science into the people's girls' schools in Posen, the minister repeats these principles, and again emphasizes that the time allowed for the present course must under no condition be shortened. If the Government continue to hold this standpoint, domestic science will not be introduced into the regular course, but retain the character of a supplementary study. It forms a part of the regular curriculum in the schools of Marienburg, in west Prussia. Domestic economy has been introduced into the schools of Berlin, Cassel, Hanau, Wiesbaden, Paderborn, Herford, Merseburg, Halle, Altona, Pinneberg, Goldberg, Haynau, Eberswald, Neumünster, Königsberg, Posen, and Dortmund; in the Kingdom of Saxony, in Chemnitz, Zwickau, Meran, Plauen, Freiberg, Rosswein, Glauchau, Wilkau, Mitweida, Limbach, Crimmitschau; in Thuringia, in Weimar, Jena, Eisenach; in Baden, in Karlsruhe, Mannheim, Heidelberg and Baden-Baden.

Appropriations for education in Prussia since 1894 allow 26,000 instead of 16,000 marks for the support of manual training for boys. Hygiene is provided for in the General Regulations, in which the study of the structure and life of the human body is placed at the head of natural-history subjects.

Bookkeeping is not mentioned in any official regulation except for continuation schools.

A visit through Prussian cities, from which later communications are at hand, proved that a systematic development of the course of study in compliance with present demands has taken place only in a few places. Hygiene most frequently receives ample consideration. As a rule a longer period is reserved for anthropology, in connection with which hygiene is taught. This is a manifest result of the requirements in Falk's General Regulations. This fact demonstrates at a glance that reforms are very easily introduced by official order, whilst pedagogical reasons alone do not have that effect. In geography and history the constitution of the German Empire and the late social-political laws are generally defined as subjects to be treated, without, however, assigning a special time for their consideration. As far as is known, political economy is provided for in Prussia in only isolated instances. Berlin has no uniform course for all studies in communal schools. The course of history requires the treatment of the constitutions of Prussia and the German Empire. Hygiene is included in the course of nature study. In arithmetic the text-books of Hellerman and Klümer are used, in which the material for examples is taken from social-political laws and economics. Cooking schools have been added to a few communal schools; attendance is optional, but stimulated by excuse from two hours of female handiwork.

The new time table for people's schools in Charlottenburg responds more freely to demands of reform. In language lessons particular attention is given to business composition. Single-entry bookkeeping is introduced in connection with arithmetic into the highest grade for boys. Girls work out arithmetical examples of domestic economy, and "are instructed how to use a book on domestic economy." Geography in the highest grade embraces the administration of justice, communal and state laws, as well as the constitution of the German Empire. In natural history practical points of view are repeatedly brought out. The course of chemistry and mineralogy for the highest grade for girls includes the following subjects: Water (filtration, baths, cooking), lighting and heating, stoves; chlorine (disinfection); phosphorus; reduction of soda; significance of sodium compounds in a household; manufacture of chinaware and glass; manufacture of earthenware (aluminum); vegetable fiber and its decomposition; manufacture of linen; cotton; manufacture of paper; starch; dextrin; gum; grape sugar (extraction of the sugar); fermentation (brewing of beer, baking of bread); manufacture of vinegar; vegetable oils; animal fat; manufac-

ture of soap; use of oils for illumination; dyes; bleaching; dyeing; calico printing; albuminoids (albumen, casein, fibrin, etc.); food and its preservation. Drawing, too, is practically taught in the upper grades.

In Dantzie, Breslau, Stettin, Kiel, Flensburg, Hanover, Bielefeld, and Cologne the course of study neither includes the specified innovations as special branches nor combines them with other studies.

In Dantzie history in the highest grade embraces the constitution of the German Empire, the navy, the protection of colonies, and labor laws. Societies have arranged for courses in cooking and manual training. In the highest grade of advanced schools in Posen, hygiene and political and domestic economy receive special attention under the heads of language, arithmetic, nature study, and history. From the 1st of April, 1895, cooking lessons are given in advanced and the three elementary schools. In the course of study for people's schools in Magdeburg the introduction of the constitution of the German Empire is compulsory. Arithmetic, as well as geography and nature study, preclude every more direct reference to life. In Halle none of the subjects in question are included in the course of study. There is, however, a private manual training school; and the material for the examples in the text-book or arithmetic by Scharlach and Haupt is derived from circumstances of the law pertaining to insurance of the aged and invalids. In Altona instruction of history in the highest grade lays special stress on "the merits of Prussian rulers in behalf of the people's welfare." In nature study the human body is studied, particularly in reference to hygiene. In connection with a girls' people's school there is a cooking school, in which pupils are taught how to prepare simple and nutritious dishes. This subject is not mentioned in the course, though. In Osnabrück the course of natural history and science includes a list of hygienic subjects (the care of healthy and impaired organs; fractures, care of the teeth, gymnastics, and hygienic attitudes; the care and strengthening of the nerves; the organs of sense; food—albuminous and farinaceous substances; salts, spices, water; articles of food and poisons; influence of air—effects of oxygen, nitrogen, carbon, and carbonic acid; the preparation of leguminous plants—soft and hard water; cooking in earthenware, copper, and brazen vessels; keeping food in closed vessels; the value of nitrogen and carbon in nourishing and warming the body; precautions in heating; ventilation; precautions in the use of gas and petroleum—cooking and illumination). In history the constitution of the German Empire is studied; late laws and the army are treated. There are special courses in manual training, in which 350 boys are instructed outside of regular school hours.

In Hagen, in Westphalia, none of the demands mentioned receives attention, but manual training is taught outside of school hours at the city's expense. Hygiene, combined with nature study, receives special attention in the highest grades of girls' schools in Dortmund. In connection with the Protestant people's schools in that city there is a class



in domestic economy in which 24 pupils at a time from the six highest grades are instructed by a specialist from 2 to half past 5 in the afternoon. Bielefeld has decided to allow for housekeeping and cooking schools. In Cologne several courses of manual training are conducted during free afternoons. In Cassel law is combined with history and religion, hygiene with nature study, and political economy with arithmetic. The reader for the upper grade has an appendix on political economy. The girls of the highest grades in arithmetic are directed how to keep an account book; those of the eighth year are instructed in housekeeping four hours a week. Beginning with the year 1896, housekeeping, combined with cooking, will be introduced into the elementary schools of Wiesbaden by way of experiment. Reports from that city further state that an effort has been made in all the schools to meet modern demands in history, geography, and arithmetic. In Biebrich, on the Rhine (near Wiesbaden), hygiene is included in the course of study; law, political economy, and housekeeping are occasionally touched upon, with other branches.

In the course of study in people's schools of Bavaria the following regulations deserve mention. Bookkeeping for girls as well as boys is to be combined partly with written language work and partly with arithmetic (official orders of January 26 and February 16, 1891). An official order of December 16, 1875, requires pupils to be instructed in the principles of hygiene, partly in connection with reading and partly with nature study. As people's schools of Bavaria have obligatory continuation schools and supplementary summer schools in which the branches mentioned are treated, these demands step into the background in actual practice in the lower schools. In the course for people's schools in Munich none of the demands mentioned are considered. Since the 1st of March, 1895, the Society for Popular Enlightenment, of that city, has instituted a housekeeping school; a course in cooking will also be opened. In Nuremberg these branches are only occasionally touched upon. In Augsburg, as in Munich, elementary study of law is reserved for obligatory continuation schools. Domestic economy is taught in the advanced female school. The city of Würzburg intends to develop people's schools according to more modern demands.

The people's schools of Württemberg are prevented from meeting modern demands by their peculiar arrangement of school sessions. In Stuttgart only hygiene receives special attention. The reader contains a few instructions on the constitution of the country.

The people's schools of Saxony leave law and political economy to obligatory continuation schools. In Leipsic and Dresden sufficient attention is given to hygiene. In Leipsic the highest grades of advanced and elementary schools devote a special hour to anthropology and hygiene. In the grade below the subject forms a part of general instruction in natural history. The course of study is as follows:

*Seventh year of course.*—Introductory view of the parts and vital



functions of the human body. Digestion and its organs, circulation of the blood, respiration, secretion (particularly secretions of the skin). In this grade the organs and their functions are treated only in so far as they lead to the deduction and foundation of rules of health.

*Eighth year of course.*—This grade deals with the more difficult chapters of motion and sensation, a proper understanding of which leads to the study of the skeleton, muscles, skin, nerves, and organs of the special senses. Besides the structure and functions, the care of the organs is discussed. The chief lessons of the grade below are reviewed and elaborated. In connection with digestion the more important articles of food are discussed. Toward the end of the year a set of rules of hygiene are deduced from the lessons, and children are instructed how to assist quickly in cases of sudden sickness and accident.

Both cities afford opportunity for instruction in manual training, though it is not of necessity connected with the people's schools. Law and political economy are likewise adopted in the course of continuation schools in Zwickau. Manual training is taught in a private school, partially supported by the State and city, in 14 grades, to 224 boys, by 9 teachers; 42 girls receive instruction in domestic economy and housekeeping in the cooking school connected with burgher schools. The course lasts fourteen weeks, and is conducted in the afternoon.

In the people's schools of Baden domestic economy has found ample consideration. In Carlsruhe alone there are 13 grades of domestic economy, engaging 7 female teachers. The study is pursued during the last two years in girls' elementary and advanced schools. During geography lessons in the upper grade the natural and manufactured products of countries are discussed in particular; in boys' schools those that are frequently met with in business intercourse, trade, and commerce; in girls' schools those used in housekeeping. The constitutions of Baden and the German Empire are treated under history in the upper grade. In Mannheim girls of the upper grade likewise receive instruction in cooking, given in four hours per week, as a rule during free afternoons. Manual training has been introduced into boys' schools. The hope is entertained that this branch will soon be introduced into the highest grades of people's schools. In people's as well as in advanced schools instruction is given in connection with the appropriate lessons of the third part of the reader officially introduced. Mannheim has advanced schools only—that is to say, every elementary school is a fully graded one of at least eight grades. Hygiene, to which one hour a week is devoted in the sixth year, is a part of the study of natural history.

Advanced schools in Mannheim—really advanced people's or burgher schools in the sense of the law—have a thoroughly modern character. They are “specially designed to equip pupils in the highest degree with the knowledge and ability necessary for their later practical life.” In

the upper grades business correspondence and single-entry bookkeeping, and in the eighth grade political economy, receive special attention. The advanced schools of Mannheim are the only German people's schools known in which political economy forms a special branch of study. Instruction under the following heads is given two hours a week: (1) Man as an individual; (2) the family; (3) communities; (4) the state and its constitution; (5) labor and the accident insurance laws; (6) capital; (7) political economy, societies; (8) trade and commerce; (9) money; (10) credit; (11) finances; (12) army and navy.

In Hessa the course of study prescribed for people's schools of four grades requires that the highest grade in history learn "the most important events in Hessian history with regard to political institutions and the constitution." Natural history in the same grade treats of the "structure and life of the human body, and laws of health." In Worms law and political economy are taught in connection with history and arithmetic.<sup>1</sup>

For the last four years manual training has been taught in connection with drawing. Since the spring of 1895 the highest grade of girls receive compulsory instruction in domestic economy four hours a week. School Inspector Scherer, of the people's schools in Worms, advocates transferring domestic economy to continuation schools, but mentions that the practical carrying out of this plan would meet with local obstacles.

Law, domestic science, hygiene, and political economy are not prescribed in Darmstadt. These studies are referred to obligatory continuation schools and housekeeping schools, attendance in which is optional. The course for schools of eight grades in Mayence introduces the regulations quoted in the foregoing plan without further specialization.

In the course of study for elementary schools in the Grand Duchy of Saxe-Weimar<sup>2</sup> no attention is paid to the branches under discussion. At the same time, in all schools "where it is necessary and practical the teachers must instruct the older boys in fruit-tree culture outside of regular lessons." In the city of Weimar hygiene and domestic economy (for girls) is included in natural history in the upper grades. Manual training has been introduced into the second burgher school. Instruction in horticulture is optional.

In both Mecklenburgs none of the demands of modern life seem to have been considered. It must be remembered, however, that manual training was introduced as early as 1862 in the normal school at Neukloster. The time set aside for this branch has been gradually diminished, owing to the reactionary tendencies which at present are brought

<sup>1</sup> See Scherer's *Guide to Teachers*, Vol. II, pp. 121-133.

<sup>2</sup> School legislation in the Grand Duchy of Saxe-Weimar. Hermann Bohlau, Vol. II, pp. 93-101.

to bear upon manual training. The teachers have no special love or preference for this branch.<sup>1</sup>

The foundation for the course of study in Protestant people's schools in the Grand Duchy of Oldenburg contains no specialized statements. From the city of Oldenburg, where school commissioners and the board of directors regulate the studies, it is learned that in consequence of the course outlined law is treated of under history and geography; political economy, hygiene, and domestic economy under arithmetic, natural history, physics, and manual training. In arithmetic the laws pertaining to the care of the aged, infirm, and the sick are touched upon.

The conditions prevalent in the principalities may be condensed in the following remarks. In the upper grade of boys' free schools in the city of Meiningen manual training has been introduced (four hours a week during free afternoons). The pupils of advanced schools are instructed two hours a week in manual training, but attendance is optional. Manual training was introduced in Gotha in the fall of the year 1895. Instruction in domestic economy will be given in the upper grade of elementary schools for girls, in compliance with the prescribed course. In the Grand Duchy of Altenburg none of these branches has received attention. Since fall of last year manual training has been introduced by way of experiment and as an optional study in the three upper grades of intermediate schools in Zerbst (Anhalt). No other demand has been recognized. In Lemgo (Lippe) arboriculture is compulsory during the last two years. In Arolsen (Waldeck) hygiene is taught under the subject of natural history, as also under natural science and language, combined with reading. Law is partially discussed under geography. The laws pertaining to the aged and invalids are treated under arithmetic in the highest grade. The same course is adopted in Arnstadt (Schwarzburg-Sondershausen). In Reuss (junior line) modern demands have received no attention. In Bremen hygiene is taught in the highest grade under the subject of natural history. The newly revised course of study for the people's schools of seven grades in Hamburg prescribes anthropology and hygiene for the highest grade. The rest of the course takes none of the aforementioned demands into consideration. In Lubeck none of these studies is pursued.

In Alsace and Lorraine very different conditions prevail. In Mülhausen (in Alsace) housekeeping in the two upper grades is combined with language and female handiwork. A manual training school has been in existence since 1880; during the year 1894-95, 380 boys were instructed outside of regular school hours four hours a week. Law (labor laws) is discussed under arithmetic.

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<sup>1</sup> Twenty-first Report on Intermediate and Elementary Schools in Parchim. Easter, 1894, pp. 3-10.



The character of Austrian people's and advanced schools has been already sufficiently dwelt upon. According to the law of May 14, 1869, the Fatherland and its constitution are to be specialized under geography and history. In language, pupils are to be familiarized with the form and requirements of the most important business compositions. In arithmetic economical, industrial, and simple mercantile calculations are to receive attention according to local relations and the future pursuits of the pupils. Girls are to be particularly drilled in housekeeping calculations. The course of study for that branch states: "Arithmetic in connection with single-entry bookkeeping." Natural history concludes with anthropology and hygiene. Physics and chemistry are also taught from a practical point of view. The advanced schools of Vienna have a very pronounced industrial character, apparent from the division of time in boys' schools, in which eighteen of the thirty hours a week are distributed as follows: Five to free-hand drawing; three to geometry; four to arithmetic and bookkeeping; four to natural science; two to natural history. The highest grade of community schools in Berlin, by way of example, allow twelve out of thirty-two hours a week for the stated branches collectively.

In the people's schools of Switzerland modern practical demands meet the fullest consideration in the upper grades. In the grammar schools of Zurich bookkeeping and hygiene, for instance, occupy a permanent place, as well as in Basel, where the study of the constitution is combined with history. The course of study in the southwestern cantons corresponds with the French throughout.

French people's schools adapt themselves in every way to practical demands. According to the law of March 28, 1882, "laws and political economy" must be provided for outside of lessons in morality and citizenship peculiar to French schools. The elements of mathematics and natural science are applied to agriculture, industries, and hygiene. Manual training is almost everywhere found in France. The course of study in the higher people's school (*école primaire supérieure*), it seems, is too much subdivided. It devotes special time to the subjects of bookkeeping, agriculture, horticulture, political economy, and female handiwork under separate heads, and, moreover, mentions civil law in connection with history and hygiene as a part of nature study.

English people's schools seem to be dominated by a utilitarian spirit. Domestic economy receives special attention.

Comment upon American schools is superfluous.



## VII.—NORMAL SCHOOLS IN SWITZERLAND.

## INTRODUCTION.

The annual report of the Commissioner of Education for 1891-92 contained a statement of the history and methods of training teachers in central Europe, in which the normal schools of Switzerland were duly mentioned, but not described. The present chapter treats of them more fully, and enters into details which will, it is hoped, be especially welcomed by normal-school teachers in the United States, inasmuch as they offer information which will afford opportunities for comparison.

In the years 1870 and 1875 J. J. Schlegel, specialist in historical sciences in St. Gall, published two works on the condition of normal schools in Switzerland during the years 1868-69 and 1871-72. In the first of these publications the subject was treated from a pedagogical and historical standpoint; statistics furnish the main substance for the second, which was called forth by Professor Kinkel, of Basel, statistician of schools for the World's Fair at Vienna in 1871, and formed the fifth section of the statistics of education in Switzerland published in part in 1875. A more recent presentation of the subject is contained in the statistics of education arranged for the Swiss Exposition in 1883 by the author of Grob's Yearbook and Prof. D. Hunziker, of Zurich. They have classed normal schools under higher schools of the different cantons, and have examined normal school conditions as they actually existed in 1881-82.

Partially digressing from the plan hitherto adopted in similar works, the following treatise, prepared from information furnished by Grob's Yearbook, will rather compare than separately examine individual institutions. A treatise on normal schools seems timely in this country, since in a number of American States the question of professional preparation for teachers has again become a subject of deliberation in educational and legislative bodies, and especially will information be welcome that comes from a sister republic.

The questions proposed in circular letters addressed to the principals of Swiss normal schools were limited to organization (course of study, practice schools, number of hours per week, beginning and length of the school year, boarding schools), teachers (number, appointment, salary, supervision), students (number, age, preparatory education, terms, scholarships, free tuition, absences, unions, graduation), and the receipts and expenditures during the year 1890.

An answer of some kind was received within six or eight weeks from every one of the thirty-six authorities consulted.

The greater number of normal schools in Switzerland owe their foundation to the general movement which, in the third decade of the present century, pervaded Switzerland in favor of better education in

general. Only one of these schools dates back to the last century, and one to the second decade of the present century. The following list gives the date of foundation of normal schools in Switzerland:

(a) *Public normal schools.*

|  |      |
|--|------|
| Normal school of the Canton Lucerne .....  | 1775 |
| Normal school in Aarau .....   | 1822 |
| Male normal school in Küssnacht (Zurich).....  | 1832 |
| Male normal schools in Munchenbuchsee (Berne), Kreuzlingen (Thurgovie),<br>Lausanne (Vaud) .....   | 1833 |
| Male normal school in Soleure.....   | 1834 |
| Male normal school in Pruntrut (Berne), female normal school in Delsberg<br>(Berne) and Lausanne (Vaud), male normal school in Lugano, now Locarno<br>(Ticino) ..... | 1837 |
| Female normal school in Hindelbank (Berne).....  | 1838 |
| Girls' school, with female normal school, in Berne .....   | 1841 |
| Two state normal schools for German and French teachers in Sitten (Valais)...  | 1846 |
| Normal school for female teachers in Sitten (Valais).....  | 1850 |
| Normal school at Hauterive (Fribourg), male normal school in Chur (Grisons).....   | 1852 |
| German normal school for female teachers in Brieg (Valais); normal school<br>for male teachers in Rickenbach (Schwyz).....   | 1853 |
| Male normal school in Rorschach (St. Gall).....  | 1856 |
| Female normal school in Zurich .....   | 1876 |
| Normal school for kindergartners in Neufchatel.....  | 1890 |

(b) *Private normal schools.*

|   |      |
|---|------|
| Male normal schools in Schiers (Grisons).....   | 1837 |
| Female normal school in Menzingen (Zug).....  | 1844 |
| New female school (continuation school) in Berne.....   | 1853 |
| Female normal school in Ingenbohl (Schwyz); male normal school in Muristal-<br>den (Berne)..... | 1865 |
| Protestant male normal schools in Bondey, now in Pescux (Neufchatel).....                       | 1866 |
| Protestant male normal school in Unterstrass.....   | 1869 |
| Catholic male normal school in Zug.....   | 1880 |

The cantons of Neufchatel and Geneva have never had real normal schools, but have arranged special divisions in the secondary schools for the training of teachers.

In Switzerland there are at present 37 educational institutions devoted, either exclusively or in one of their divisions, to the training of teachers; 22 of these belong to German, 13 to French, and 2 to Italian Switzerland. In reference to sex, there are 13 female and 23 male normal schools and 1 mixed normal school.

## I. ORGANIZATION.

(1) *General remarks.*—Two groups of normal schools may be distinguished according to the plan of organization.

The first is closely allied with the cantonal secondary schools. Future teachers receive their general and scientific education in common with younger pupils who are qualifying to enter a university or a higher technological school, or completing their preparation for practical life with a secondary school education (Zug, Soleure, Chur,

Schiers, Neufchatel, Geneva). For a general preparation lower or preparatory grades are arranged. Still, most pupils of the pedagogical section are not advanced from the lower grades of the institute itself, but come from the general people's and grammar schools throughout the State. Normal schools for women, as a rule, do not educate teachers exclusively, but are either closely or distantly connected with higher female schools, which begin where grammar schools leave off, and aim at a general education (Zurich, Berne (2), Ingenbohl, Menzingen, Fribourg, Aarau, Neufchatel, Geneva). Of late years one of these institutions (Zurich) has partially assumed the character of a classical high school, so that pupils who wish to prepare for admission to a university pursue particular courses as necessity dictates. Because of its organization another (Fribourg) may be styled a female normal school "in embryo," as it contains but 2 grammar and 2 normal grades, and dismisses pupils at so early an age that they can hardly be fully equipped for directing a school.

The second group embraces about two-thirds of all normal schools. Allied with common elementary or grammar schools, they are exclusively concerned in the education of teachers whom they fit out in a shorter or longer time to be excellent conductors of primary schools. Several among them have preparatory grades (Rickenbach, Schiers, Peseux). The larger cantons are at present again publicly discussing the question whether the first or second of these groups tends most toward practical results (Zurich, Berne, Aarau). Two normal schools for men have very recently gone over from the latter to the former group (Zug, 1887; Soleure, 1888).

If the settlement of this question devolved upon teachers, it would long since have been effected in Zurich by the decision to combine the normal school with the cantonal secondary schools, or perhaps by satisfying the simultaneous demand for appropriate arrangements for special professional education at a particular institution or at the university.

In Aargau a large majority of teachers have taken a similar standpoint. In repeated petitions to the Federal Legislature or Council they have expressed the wish that normal schools be transferred to the capital, and that their general scientific sections be combined with the cantonal intermediate schools. Recently a new petition for the purpose has, by instigation of the government councilor, been set aside by the Federal Council, but the question can hardly rest until the wishes expressed have met with some kind of recognition.

The plan of separating the sexes, formerly general, has been disregarded by the State normal school in Kussnacht (Zurich), which for the last twenty years (since 1873) has admitted girls. After completing a four years' course in common with boys, girls are allowed to take the same test examination. The greater number afterwards teach in elementary schools for both sexes.

(2) *Age of admission.*—It is very gratifying to notice that those destined to be teachers are not allowed to undertake their difficult

task too early in life. The greater number of normal schools require completion of the fifteenth year before entrance. Others prescribe the sixteenth year: Zug, Thurgovie, Vaud, Neuchâtel (male), Geneva (female). The normal school for women of Neuchâtel does not admit pupils under 17 years of age. In this respect conditions are not so uniform as they appear in the statistical tables. Here and there the regulations are rather undecided, and admit of different interpretations. As a rule, nearly all exceptions are in favor of admitting older and not younger pupils than the regulations prescribe. The general view seems to be that teachers should not enter into practical service until they have completed their twentieth year.

(3) *Preparation.*—Normal schools that admit students whose knowledge and ability are not above what an elementary school affords are lessening in number year by year. Even when regulations do not demand a higher preparation a gratifying number of pupils, when admitted, have a more or less complete grammar-school education (Berne, Schwyz, Fribourg, Grisons, Ticino, Vaud, Valais).

The following is an extract from the annual report (covering the period from 1884 to 1888) of the directors of the normal school at Hofwyl:

About two-thirds of the new students are pupils of advanced and one-third of simple elementary schools. As examinations are arranged by rule according to the elementary school course of study, they can be passed by capable and well-prepared pupils of elementary schools. Good pupils of advanced schools, however, continue to have a decided advantage during the course. The question forces itself upon us more and more whether one of the conditions of admission should not be a uniform preparatory education which would be a sure foundation for a normal course. (Martig.)

It seems that private normal schools pay particular attention to this point. Even in those cantons where legal regulations define the course of an elementary school as sufficient private normal schools take the precaution of replacing attendance at a grammar school either by preparatory instruction or the support of excellent candidates, so that newly admitted pupils, as soon as possible, attain a certain uniform level, and can without further drawbacks apply themselves to preparing for examination. They recognize a thorough preparation of their students as the chief means of being able to compete successfully with the State normal schools.

Normal schools for men frequently receive students who, actuated by zeal and a free resolve, decide upon teaching as their vocation only after they have entered upon practical life. Such usually are sensibly deficient in knowledge; but the earnestness and zeal which they devote to their self-chosen calling advance them to the first rank. It is most gratifying to notice that teachers are supplied from all parts of the country. If we examine the lists of twenty admitted pupils according to the places where they have received their first schooling, we find represented all places, large and small, mountains and valleys, city and country, even to the most insignificant and forlorn villages.



(4) *Beginning and length of course.*—The number of years required for the education of male and female teachers ranges from one to four. There are 10 institutions with four, 2 with three and one-half, 18 with three, 5 with two years courses, and 2 with a one-year course. The inequality seems somewhat less striking when we consider that of the 18 normal schools with a three years course 4 prescribe the completion of the sixteenth year, and that 1, the female normal school in Neufchatel (pedagogical section of the cantonal gymnasium), admits pupils only after the seventeenth year is completed. The standard by which a teacher's education is measured seems to vary as much as the valuation of that knowledge and ability which the common schools afford to children entering upon practical life, or the estimation placed upon the worth of people's-school teachers in general.

Within the last ten years there has been an evident effort in several cantons toward shortening the time of instruction in normal schools. So far they have been unsuccessful. In the Canton of Berne the extension of time from a three to a four years course for the State normal school in Hofwyl, decided upon in 1880, could not be carried into effect. Under the pressure of a temporary want of teachers the grade referred to was, in the fall of 1883, admitted to the examination for diploma, whereupon the decision rendered by the government councilor on the 30th of January made the three-and-one-half-years course permanent. In his annual report the principal expresses the regret that the four years course which the teachers attempted to introduce failed of success. In the Canton of Aargau an effort was made to abolish the fourth (highest) grade at the State normal school in Wettingen and limit the course to three years; but this, so far, has met with too ardent an opposition from teachers and authorities. The most recent efforts tend toward extending the course of study at the female normal school in Aarau to four years, to correspond with that of the State normal school.

In the Canton of Zurich the advocates in favor of shortening the course have received no attention.

In Thurgovie, on the other hand, repeated efforts have been made to extend the three years course for elementary-school teachers to four years. In 1873, however, the project countenanced by the government was not favored by popular vote. In 1882 normal-school teachers advanced a new idea. With the introduction of the fourth course (so reads their memorial) there would come a year in which no students would be graduated; as a consequent result there would be a better adjustment between the number of unengaged teachers and vacancies to be filled. Students who now leave at the end of three years without receiving appointments would be better cared for by the fourth year's course; at the same time the schools would be greatly benefited. The demands upon a normal school education so increase from year to year that they can hardly be satisfactorily complied with in three years.

The extension of normal-school courses has recently been agitated in other cantons; in Berne, for instance, it has been successfully carried out. The authorities have thought best to defer all further mention of the former project "until the question of carrying the twenty-seventh article of the constitution, concerning the province of federal legislation, into effect had been to some extent cleared."

Twenty normal schools open in spring (April or May); 17 in the fall (September or October). South, west, and middle Switzerland usually adopt the latter custom; the customs of Berne, Schwyz, and Vaud follow east Switzerland in this respect. The State normal school of Grisons opens in the fall; the private normal school of Schiers, together with the other normal schools of east Switzerland, in the spring. The normal school of Hofwyl (Berne) stands alone in admitting new pupils in the spring, but reckoning the school year from fall to fall, the first is therefore only a half-year course.

A ten-weeks vacation is fairly uniform. Only two normal schools (Kreuzlingen and Unterstrass) allow less time, nine weeks. Soleure and Muristalden have eleven; Hitzkirch, Locarno, Sitten, Brieg, each twelve weeks' vacation. The last three open in October and continue uninterruptedly to July, so that there are nine months of school and three of vacation. As these institutions are boarding schools, students spend their vacation at home; in case of remaining at the institution they are charged an extra fee for the length of time they stay. At other schools, as a rule, the vacation is so divided that two weeks come in spring, four in summer, and two in autumn. Generally there is no instruction between Christmas and New Year. In Valais, at the beginning of the school year in September, two monthly courses of review are conducted by already appointed male and female teachers. In this case the lower grades have vacation till the 1st of November, while the upper grades begin on the 1st of September.

(5) *Studies*.—(a) *General education*.—Two to four hours a week are devoted to religious instruction throughout the course. The normal schools of Kussnacht and Zurich limit this study to biblical history. The course of study in the public schools of Neuchâtel and Geneva do not include religious instruction, which is left to the family and religious societies. Several normal schools (Hindelbank, Berne [new female school], Muristalden) teach the method of religious instruction combined with practical exercises. Private normal schools make a point of differing from the public by devoting more time to religion.

Language, to which from five to ten hours a week are devoted through the entire course, is a prominent study in all normal schools. The vernacular receives more attention throughout French and Italian than in German Switzerland, where natural science and mathematics rank as equally important or, in some cases, higher if measured by the amount of time devoted to it. Foreign languages, on the other hand, are generally more earnestly studied in German than in French normal

schools. All, excepting the male normal school in Hauterive and the female in Lausanne, teach a second language; German and Italian schools, French; and French schools, German. The male normal school in Locarno teaches German as a second foreign language, which is an optional study.

The pedagogical section for teachers at the College of Geneva is exceptional in reference to foreign languages. The course of study in this institution allows throughout the four-years course more hours a week to German (five) than to French (four). This is not altogether due to the fact that a law recently passed in the canton requires German to be taught in elementary schools. Young teachers who, owing to the small area of the Canton of Geneva, are sometimes necessitated to look for employment in other cantons and abroad can more easily obtain positions if they have a better knowledge of German.

Italian forms a part of the curriculum in the female normal schools of Menzingen and Aarau and the male normal school of Schiers, but is studied rather by students who do not intend to be teachers. English is an optional study at 2 male normal schools (Kussnacht, Schiers) and at 6 female normal schools (Zurich, Berne (2), Menzingen, Fribourg, Aarau).

Latin is an optional study at the male normal schools of Kussnacht and Zurich, at which latter institute it is taken up by students intending to enter the university. The importance of this study for future teachers is shown in the following remarks of the director of the college at Geneva:

I often receive applications for teachers from foreigners with the request not to recommend anyone unable to teach Latin. Now our pedagogical section makes no mention of this language in its curriculum; when I show the results of graduates' examinations I am told that the young gentlemen are not sufficiently prepared. Consequently nothing is left for these young men but to follow the career of an elementary-school teacher.

The time devoted to mathematics is very unequally distributed in different normal schools. The average number of hours a week during the course varies between three (Neufchatel, female pedagogical section) and five and one-half (Kussnacht). As a rule, male normal schools devote more time to this branch than female. The female normal school at Zurich, the only exception in this respect, must conform to the State normal school for men at Kussnacht, owing to the fact of having the same test examination in everything but surveying.

First in order, according to the number of hours employed for mathematics, are the normal schools of Kussnacht (twenty-two), Unterstrass (twenty-one), Zurich, Soleure, and Wettingen, each twenty, with a four-years course each; the least time devoted to the study of mathematics is by the female normal schools of Fribourg and Lausanne (nine), Locarno (eight), Geneva (two), Neufchatel (three), and the male normal school of Neufchatel (eight). Keeping accounts and bookkeeping are also



included in mathematics, sometimes forming a special branch, as in the male normal institutes of Ingenbühl, Menzingen, Hauterive, Fribourg, Kreuzlingen, Locarno, Neufchâtel, Geneva, and Peseux, and sometimes combined with other studies, as in Hitzkirch with arithmetic and in Muristalden with writing. A certain number of schools do not advance this study beyond the standard of a first-class elementary school; others, again, in this respect assume the character of actual secondary schools by facilitating a promotion into the university.

Natural science is entirely neglected in the female normal schools of Valais, and varies in importance in other institutions. The male normal school in Küssnacht (twenty hours) and the pedagogical section of the college in Geneva (eighteen hours) rank foremost in reference to the number of lessons in this branch. They are followed by the female normal school in Zurich and the male normal school in Wettingen (seventeen hours). Only the male normal schools of Küssnacht, Zurich, Hofwyl, and Geneva have a laboratory where pupils can make experiments, and manipulate at least the most important physical and chemical apparatus. More modest arrangements are elsewhere provided.

In some places hygiene forms a special branch of natural science (Hauterive, Locarno, Lausanne, and Geneva); in others it is appropriately combined with other sciences (Küssnacht, Zurich, and Schiers).

Agriculture is likewise pursued in several normal schools, as, for instance, in Hitzkirch, Hofwyl, Delemont, Muristalden, Hauterive, Zug (fruit-tree culture), Soleure, Rorschach, Chur, Wettingen, and Sitten. Theoretical instruction in agriculture is generally combined with practical exercises in gardens and fields. Pupils are interested in agriculture at the normal schools of Hofwyl, Pruntrut, Muristalden, Rickenbach, Zug, Hauterive, Rorschach, Chur, Wettingen, Kreuzlingen, and Sitten. At the male normal schools of Valais natural science consists in instruction in agriculture and cattle raising (meadow culture, growing vegetables and fruit, culture of useful plants, cattle raising, dairy work, etc.).

The same amount of attention is universally given to history and geography. The number of lessons a week in these branches show no such important differences as in nature study. Most courses of study include three lessons a week for history and two for geography. Where mathematical and physical geography form special branches the former is occasionally included in mathematics; the latter in nature study. The history and geography of Switzerland naturally receive the greatest attention.

In the male normal schools of west Switzerland civics (instruction civique) is treated as a separate study; in German normal schools for men the study of Fatherland, law, and constitution are united with history and geography, or connected with the latter as a concluding chapter (Küssnacht, Hofwyl, Rickenbach, Hitzkirch, Wettingen). A study of the federal constitution has been expressly introduced into some



courses as a compulsory study. We sometimes hear that the curriculum of normal schools for men, like secondary schools, includes the study of civic relations; but because of "lack of time" this knowledge is in reality left to be self-acquired in practical life. The fact is being better understood every day that the main thing to be considered in teaching history and geography is not mere memorizing of names, dates, and numbers, but a proper understanding and appreciation of the events themselves and, in particular, the important movements in the history of civilization.

Singing occupies a prominent place in all normal schools, having as many as 5 lessons a week. Instrumental music is not taught at all in 9 female normal schools (Berne (2), Aarau, Locarno, Lausanne, Brieg, Sitten, Neufchatel, and Geneva); in two institutions (the female school in Fribourg and the male normal school of Locarno) it is an optional branch. At the other normal schools, as a rule, one instrument, with 2 lessons a week, is obligatory, and a second optional. The violin is the most popular instrument, followed by the organ, piano, harmonium, and cithern. The latter is taught in several normal boarding schools for young women.

Drawing is taught in all normal schools at least two hours a week. Kussnacht, Unterstrass, and Soleure lead, with 12 lessons a week each; Lausanne (male teachers) numbers 11, Zurich (female teachers) 10 lessons a week. Other institutions are giving increased attention to drawing, as its value in manual training and industrial pursuits is being more generally recognized.

Penmanship receives very different degrees of attention. Some schools have but a one-year course, with 1 lesson (Zurich, Locarno, and Geneva); others combine it with bookkeeping (Pruntrut); others again devote to it as many as 7 lessons a week (Rickenbach, Lausanne (for men), and Menzingen).

Gymnastics are under federal supervision. The cantonal board of school directors were formerly required to hand in, after every inspection, a statistical report, made out according to a given scheme, which has since been exacted by the military department of Switzerland at least once a year. The cause of gymnastics will hardly be promoted in normal schools until the military preparation in the cantons is substantially supported by the Federation in word and deed. Federal supervision, however, draws the attention of the cantons at least once a year to this department. The number of lessons a week is much more uniform than in most other branches (2).

Several normal schools for women have as yet not adopted gymnastics into the regular course (Brieg, Sitten, Ingenbohl, and Menzingen).

Where male normal schools are divisions of secondary schools (Chur, Soleure) the students participate in the military exercises.

Manual training for boys has lately begun to be introduced into all normal schools in which handicraft is pursued independent of agricul-

ture (Hofwyl, Pruntrut, Muristalden, Locarno, Lausanne, Neuchâtel, and Geneva). It is taught mostly in the upper grades in 2 to 4 lessons a week, and promises to pave its own way into general people's or elementary schools.

As a rule, the theory of housekeeping is combined with female handiwork, to which all normal schools, excepting those of Zurich and Aarau, devote from 3 to 4 lessons a week. There still exist a few traces of the arrangement formerly in vogue of teaching French, for instance, simultaneously with female handiwork. In the female school in Fribourg cooking, ironing, and garment cutting are taught, in addition to the usual female handiwork of knitting, sewing, and embroidering.

(b) *Professional education.*—For various reasons most normal schools do not qualify future teachers for their vocation as well as might be desired. In the first place, the time allowed for training pupils is too short for them to acquire more than a certain elementary knowledge of the general subject-matter of instruction; a thorough drill in the practical part of teaching is not permissible. In the second place, candidates while in attendance at school are too young to appreciate and apply the studies of psychology and didactics. The matter is in itself so difficult that even normal-school teachers are not always its exact interpreters. Finally, the inadequacy of existing arrangements for practical exercises prevents the desired success. The schemes submitted to the authorities referred particularly to existing provisions for the promotion of practical pedagogy. Because of the importance of the subject, the following analyses of the minutiae of the information received may be welcome.

Usually two hours a week for one to two years are devoted to general pedagogy. In this assignment of time no essential differences in the various institutions are shown. The history of education offers no occasion for comment. In some schools it follows, in others it precedes general pedagogy. In some the subject is presented from the earliest times to the present, in others character sketches are drawn, combined with the reading of modern pedagogical works (i. e., Lienhard und Gertrud). Theoretical didactics is either connected with all the studies or treated as a separate special branch. With reference to language, arithmetic, and singing, the teachers of practice schools or specialists comment on the methods of teaching as occasions present themselves. General pedagogy and methods are usually taught by different teachers. The normal school for men in Kussnacht is an exception in this respect; of late years the same arrangement prevails that was in vogue at the opening of the institution fifty years ago. These two studies have been so combined that pedagogy is taught by the instructor of methods or didactics. As the latter is at the same time the director of the practice school, he is in that capacity partly represented by a capable young teacher. Thus it is hoped to deepen the knowledge of methods by means of the science of pedagogy and to make pedagogy more practical and fruitful by means of the study of methods.

The ways in which future teachers are initiated in the practical pursuit of their calling are manifold, and yet to some degree uniform. Candidates for the position of teacher are obliged to attend a school, first to notice and listen, then to take an active part, first in one, later in several grades, and finally to discuss their experiences and observations under competent directors, by whom their attention is drawn to deficiencies and mistakes. They are also required to write out pedagogical exercises and study works on methods of teaching.

Practice schools corresponding to the schools in which teachers are later engaged are combined with most normal institutions. The want of such an arrangement is regarded as a deplorable deficiency, and earnest efforts are made to supply the want. Candidates can, it is true, attend a few public schools and sections for observation and attention, but they have no opportunity for practicing where a practice school is not in organic connection with the normal school.

The following examples of professional preparation at normal schools will explain the above conditions better:

Pupils of the highest grade receive 3 lessons a week in the theory of general and special didactics or methods, and are made acquainted with the means of instruction obligatory in people's schools. Besides, every three days they take turns in visiting practice schools, where they have occasion to participate in teaching. In addition, each one for two or three weeks conducts a certain study in a single grade, and in conclusion undertakes the direction of the entire school. (Kussnacht.)

In the third (next to the highest) grade young ladies receive 2 lessons a week in special methods, are made acquainted with the means of instruction, and begin with practice lessons. General methodology, special methods of teaching, and the study of schools are taught in the fourth or highest grade. Practice lessons, conducted at times by teachers and at times by students, and visits to the different grades of city primary and grammar schools, combined with practical exercises, inculcate the knowledge of conducting schools. Every student has the benefit of a two-weeks attendance at the elementary, historical, and scientific sections of practice schools. (Zurich.)

Every student of the senior grade gives a week's attention in practice schools, and teaches a few lessons; the second week he conducts the school under the teacher's direction and supervision. Each one of two senior students conducts one lesson a week, in which preparation and application of methods are discussed. (Unterstrass.)

The 5 primary schools of the town of Munchenbuchsee are practice schools. In next to the last year's course one hour a week is devoted to visiting primary schools; in the last course three hours a week are spent in visiting intermediate and high schools; one hour a week is given to criticism and the discussion of lessons. Where it is considered necessary, teachers of practice schools assign model lessons on a given subject as a practical exercise for the pupils whose treatment is subsequently discussed. (Hofwyl.)

Pedagogy includes general methodology and the method of teaching language with practical exercises. The methods of other branches in the course of study are taught by different teachers. The pupils of both upper grades are called upon in turn to teach in practice schools. The senior class is by degrees employed in directing every grade of the school. They keep a journal in which they note all the details of their doings and the observations made. The teacher in charge of the practice school supplements his remarks on the aptitude of the pupils from the



standpoint of discipline and pedagogy. Being in accord with specialists and the teacher of pedagogy, he is commissioned to give pupils all necessary practical directions. Explanation and criticism of practice-school journals take up part of the time devoted to methodology. (Principal Perrentruy.)

Practice in teaching, most closely united with the science of pedagogy, is effected by model lessons, visits to schools, trial lessons, and practical exercises in normal and practice schools. (Hindelbank.)

In winter every senior student, at least for a whole week at a time, acts as assistant in a grade assigned by the model teacher, by whom he is thoroughly drilled in management and discipline. In order that the schools suffer as little as possible from having too many teachers and from the inexperience of normal school students the latter are obliged to make very exact and uniform preparations. This is accomplished by instruction in methods and accompanying exercises, lectures, and criticism. The students write out their preparations in a copy book, which is submitted to the teacher for examination and approval. (Organization of the normal school at Muristalden, Bern.)

Three divisions are distinguished in practical pedagogy. In the first, young ladies listen to a model lesson conducted by the class teacher; in the second, they repeat a prearranged trial lesson; and in the third, entirely conduct a lesson on a given theme. Every week the whole senior class spends half a day in a city school, where it separates, so that each student has the benefit of the above-mentioned practice in all of the five grades of the practice school. Criticism on the manner in which these practice lessons have been conducted follows in the lessons on methods. (Bern, new female school.)

During the last two years of the course students have exercise at practice schools under the supervision of the teacher in charge of said schools. They attend two by two during three consecutive days, so that each pupil has a turn about once in seven weeks. Practice schools are communal primary schools attended by children of the first three years (6 to 9 years of age); normal-school students teach alternately in each section. (Delemont.)

The third year's class has four hours a week practice in the German preparatory school connected with the institution. This school consists of the three divisions corresponding to the higher courses of the primary school, and is conducted by a class teacher. The normal-school teacher informs every student of the subject-matter a few days beforehand. While he is conducting the lesson the normal-school class is present and takes notes. A general discussion follows. The students express their opinion on teacher, mode of teaching, language, position, discipline, etc. The class teacher then rectifies the remarks made and deduces his own conclusions, giving hints for the future. The class teacher is in closest sympathy with the teacher of methods, who is also inspector of practice schools. (Zug.)

Students of the third year, during the second half, and those of the fourth year, during the first half of the scholastic year, spend half a day every week together at the model school, where they pay attention to special methods and model lessons and engage in actual practice in the teacher's presence. In order to acquire the necessary skill in management they visit the model school alternately, one by one, on one or more days, either to observe and listen or to be actively employed. (Soleure.)

In connection with preparations and criticisms on their practice in teaching the senior students are instructed by the teacher of practice schools in the methods of the separate studies of people's schools. After grades and studies have been arranged in the beginning of the first semester, every student must for two or three weeks attend occasional lectures, whereupon his practical studies begin. Grades and studies are changed in the second semester. Preparations are discussed and criticised in their application. The presence of other students at keeping school is compulsory. The teacher of pedagogy devotes an extra hour once a week to the



discussion of the trial lessons and the experiments and observations made at the normal school. (Chur.)

After students of the second year have become acquainted with pedagogical writings during one semester, have studied the subjects of imagination, emotion, and volition in psychology, as well as the methods of different school studies in general, and have made preparations for every branch pursued in the upper grades (fourth to the sixth elementary school year) they are introduced into practical teaching by the instructor of methods. The preparation of a study is assigned to every student, with whom it is then discussed; if considered good, it is carried out in the class room under the teacher's direction. After a student has worked at a branch for five or six weeks a new programme is arranged; the studies are so changed that every student has some practice in the most important branches. In the third grade a similar plan is adopted, the only difference being that students from the beginning are actively employed in teaching at the model school, and as capacity permits, are allowed to teach in primary grades (first to the third school year). (Schiers.)

The practice-school teacher also instructs the students in special methods. From the third (next to the highest) grade on students are required to visit practice schools and conduct trial lessons. On a one-session day of three hours senior students alternately take entire charge of the classes in the teacher's presence, so that they gradually become acquainted with the complete working of schools of eight grades. Discussions are combined with practice. (Wettingen.)

In the first quarter of the third (highest) grade young ladies begin to practice in their own class. From the second quarter on their practice extends to city primary schools, beginning with the lowest grade. The practical exercises are concluded in the divisions of schools of two grades. Men and women teachers assist throughout by giving necessary practical hints. The teacher of pedagogy conducts practice lessons with the young ladies in the different divisions. This is better than the former arrangement, when in one afternoon a large body of children participated in one trial lesson. But normal-school principals do not consider the frequent changing from one division to another and from teacher to teacher the best preparation for teachers. They are endeavoring to arrange a true practice school in connection with the three lowest grades at least. As most women teachers are engaged in primary schools, practice in these grades would be sufficient. (Aarau.)

After the organization of people's schools has been discussed in class the second-grade students, during the second half year, visit practice schools for a day at a time as quiet observers; a minute report of their observations is handed in to the teacher of pedagogy. In summer, just as in winter, students of the third year spend their time in listening and observing, assisting in the correction of written tasks, and after a progressive preparation giving oral instruction in the different branches and grades. They are under the supervision and direction of practice teachers, to whom they hand written preparations, and with whom faults and errors are discussed. A written report of their observations and experiences must be handed to the teacher of pedagogy.

From time to time the whole third grade assists at the instruction of practice teachers in presence of the professor of pedagogy and, as circumstances permit, the observations made are discussed. In winter the different grades of elementary schools assemble once a week at the normal school, the students of which by turns conduct lessons, for which all must prepare. A free criticism follows between directors and pupils. Occasionally other schools are visited. (Kreuzlingen.)

We have as yet no model school; we shall have one next year. (Locarno.)

A professional and practical education is acquired at practice schools. Students of the senior class go there by turns, so as to participate in all the lessons. (Lausanne.)

In the absence of practice schools, those who wish to be teachers have the opportunity several times a year of attending lectures and conducting practice lessons at the primary schools of Sitten. (Sitten.)

Students of the first year (lower grade) devote one hour and those of the second year three hours to practical exercises in the elementary city schools. (Neufchatel.)

Students are practically engaged at model schools, first, as monitors in charge of classes during recreation and walks, as an exercise in disciplining; after that, as assistants under the direction of the presiding teacher; and lastly, as class teachers, preparing their instructions in writing and teaching in the presence of the principal, presiding teacher, and classmates. The lessons are subsequently criticised by all. (Peseux.)

After leaving school young teachers are on probation for an indefinite time. This arrangement of teaching under the direction of a teacher, even after leaving the normal school, prevails also in the Canton of Fribourg. The probationer receives no definite appointment, and in some cases only very small pay. (Regulations of Geneva.)

The normal courses obligatory for students of the first year include all the studies of elementary education (object lessons, language, geography, arithmetic). Practical exercises are combined with the theoretical normal courses. Under their teacher's direction normal-school students teach in the different grades of primary schools, especially language and all its branches, arithmetic, elementary geometry, and geography. (Women teachers of Geneva.)

We have amply considered different models of arrangements for the practical education of teachers, from the modest beginning of occasional attendance at lectures in school to methodical direction and individual exercise in model or practice schools. The difficulty of giving each normal-school student the greatest possible amount of practice still remains.

(c) *Number of lessons per week.*—The total number of lessons per week in the normal schools of Switzerland is very considerable. While the effort to keep the standard of obligatory studies moderately high is perceptible, optional studies are made so attractive that zealous students eager for knowledge, as a rule, devote considerable time to them.

The normal school for women of Geneva has the least number of lessons per week, 25; the normal schools for women of Sitten and Brieg have the most, 46. The lower extreme is an isolated case, and the larger is approached by many other institutions; the average is 38 lessons per week; all others number over 30, and nearly half 40 lessons and more. When we consider that 19 normal schools have optional studies, and employ a large number of specialists, who do not always confine the private tasks of pupils within prudent measure, we must confess that the number of lessons per week for future teachers is uncommonly large, generally even to excess. In revising the courses of study judicious omissions will have to be made.

It is more difficult to reduce the number of studies in normal schools than in other higher educational institutions. When any branch of knowledge has developed into a special study to which a more general significance is attributed, its introduction into normal schools is advocated clamorously. In case any pedagogical thought has made more or less progress in the public consciousness, normal schools are at once called upon for a practical test. Teachers themselves are the most persistent in this, because they preeminently feel the necessity of

continuous improvement in normal-school education. In addition to these outward influences the general difficulties are further aggravated by the persons (specialists and authorities) upon whom such a revision devolves. Each one is so convinced of the great importance of a special branch that he strains every nerve to insure it a correspondingly large amount of time.

All the good genii of youth will have to muster their forces to prevent a heavier burden of lessons, which is more likely to result from revising the course of study than the intended reduction of studies.

## II. BOARDING SCHOOLS.

Twenty-four of the 37 normal schools accommodate boarders. Nine for women, 3 for men, and 1 mixed normal school, 13 in all, do not take boarders. All private normal schools are boarding schools. The dormitories opened in the spring of 1840 at the male normal school of Kussnacht, in Zurich, were closed conditionally in the summer of 1875, and have not since been opened. The male normal school in Locarno has accommodated boarders only since 1889.

Dormitories have an economical as well as educational purpose. Their favorable educational influence on future school-teachers has lately been most emphatically contested. The discipline and seclusion of a convent are not considered an appropriate preparation for the later position of teachers among the people. The characteristics developed by boarding schools are calculated to estrange teachers from the people and the young, and increase the difficulties of their professional practice, whereas continual contact with the world insures self-reliance and preservation from educational prejudices. On the other hand, it is maintained that boarding-school discipline, rather than the enjoyment of unlimited freedom at so young an age, tends to preserve young men from dangerous excesses. The economical side of the question deserves to be the more earnestly considered, as teachers are in Switzerland largely supplied from the lower strata of society, with whom the cost of several years' residence away from home becomes a question of actual existence. By granting sufficient scholarships capable young men can study for the profession of teaching without the necessity of boarding schools. According to experiences in the Canton of Zurich, it would be a mistake to believe that boarding schools are attended with more expense to the State than day schools with increased scholarships. After closing the boarding department of the normal school in Kussnacht the average yearly expenses per pupil did not increase to the anticipated amount (1874, 510 francs; 1875, 550 francs; 1876, 550 francs; 1877, 580 francs; 1878, 570 francs).

The daily routine of boarding schools is nearly everywhere the same. In summer pupils rise at 5 o'clock; in winter at 6. Personal work then begins. Morning prayer and breakfast between 6.30 and 7.30, class work from 7 or 8 to 12, dinner at 12, outdoor work or gymnastics



at 12.30, class from 2 to 5; then afternoon collation, with a short recreation; outdoor work from 7 to 8; then supper, followed by indoor work until 9; evening prayer, and retiring for the night. This is the daily order of the different boarding schools, which is identical with that followed out in all normal schools for men. Where agricultural labor is pursued field and garden work offer an agreeable change of occupation after dinner or evening classes.

In some schools students are obliged to assist in preparing meals, splitting wood, etc., and engage in general housework, as sweeping the rooms, stairs, halls, etc., setting and clearing off the table, caring for the lamps, attending to the stoves, etc. (Hofwyl). In this case a part of the servants' work devolves upon pupils, to keep down expenses. Several normal schools have recently introduced manual training, which will gradually displace the less educational housework.

Boarding is usually compulsory; day students are admitted only where there is lack of room. In Hofwyl senior students live in private boarding houses. In Chur boarding at schools is optional. Present accommodations are hardly sufficient for half of the students; the other half are partly accommodated in boarding houses and partly in the boarding department of the cantonal school.

In the normal school of the Canton of Thurgovie, in Kreuzlingen, a petition of the teachers to make boarding optional was not granted. As a rule a number of pupils live together in study halls and dormitories. At the normal school of the Canton of Aargau, in Wettingen, the room system is carried out; 49 rooms of different sizes are at the pupils' disposal; at present each room is occupied by one or two pupils.

In the normal school of St. Gall the boarding department is managed by a steward; the semiannual boarding fee is regulated by existing prices of food. Every pupil is required to pay 1 franc a year for the use of tableware furnished by the steward at his own expense; breakage must be replaced by the students.

Annual fees for board are generally very small. In the State normal schools of the Canton of Berne the poorest students pay the small amount of 150 to 170 francs. Additional payments, varied according to the wealth of the parents, are required of those better situated; for every 1,000 francs of reversionary or prospective property from 25 to 270 francs is added, which fixes the maximum at between 400 to 420 francs. Most of the payments range between 300 and 400 francs; those nearest to 300 francs predominate.

According to the accounts of the boarding department of the pedagogical section of the cantonal school in Soleure, the amount paid by the State for one student's board in 1889 was 5.50 francs per week. Young teachers, after receiving appointments, must pay back this outlay at the rate of 3 francs per week. (Primary school law of 1873.) This amount does not include the weekly expenses of the State for light, heat, washing, medical attendance, sundry replenishments of



inventory, averaging 1.75 francs per pupil; the total outlay amounts to 7.25 francs per week.

As it is presupposed that pupils spend their vacation at home, the average boarding fee does not exceed 1 franc (20 cents) per day. Some schools board pupils during vacation, but only at an extra charge. As medical attendance and washing are included, the charges of boarding schools are really very moderate. Students from other cantons usually pay higher rates than those born within the limits of the canton. Indigent students are taken free of charge, or the boarding fee is reduced, or scholarships are granted which cover either all or part of the fee.

State normal schools of the Canton of Berne grant scholarships to the amount of 400 francs per student, decreased in proportion to what a student must contribute toward the fee according to his financial condition. About two-thirds to three-fourths of the students pay the least amount, 150 francs, and receive the highest scholarships, 400 francs. Hauterive grants no real scholarships, but for indigent students the fee is reduced from 350 to 200 francs. We learn from Soleure that "scholarships are not necessary, as the State defrays the expenses of residence, board, medical aid, and washing."

The directors of the male normal school in Kreuzlingen sent the following communication:

In the school year of 1890-91, 44 of the 55 students of Thurgovie received scholarships. The lowest State scholarship amounted to 90 francs; the highest, to 200 francs. The synode grants extra scholarships to Catholic students of Thurgovie; 9, ranging between 70 and 100 francs, were given in 1890-91, making the total amount received by each pupil 800 francs. The home cantons grant scholarships to nonresidents of Thurgovie to the amount of 350 francs, out of which the board fee must be paid.

Two examples of menu cards will give an idea of the fare in boarding schools:

*Menu in normal school for men in Kreuzlingen.*—Breakfast (7 o'clock): Oatmeal porridge, with bread; Sundays, coffee and milk, with bread. Dinner: Soup, meat (pudding once), bread and vegetables, a pint of cider or a glass of wine. Afternoon collation (4 o'clock): Coffee and milk, with bread. Supper (7 o'clock): Soup, with bread; Sundays, sausage, cheese, and the like.

*Menu in normal school for men in Locarno.*—Breakfast: Coffee and milk, with bread. Dinner: Soup, meat (200 grams), vegetables, bread, and a glass of wine. Afternoon collation (4 o'clock): Cold meat, sausage, or cheese, with fruit and bread. Supper: Meat soup or milk, with polenta and a glass of wine.

It is surmised that other boarding schools similarly provide sufficient and wholesome food.

### III. TEACHERS.

Normal-school professors are appointed to instruct in a single branch or a few closely allied studies. In small schools the whole burden is borne by a few teachers. Large schools employ specialists for depart-

mental teaching exclusively. In boarding schools teachers and even their families live in the schoolhouse (Wettingen). If unmarried, they eat at the table with the principal or steward. Families occupy dwellings connected with the institution, which obliges them to assist in superintending the students.

In most cases the principal is at the same time superintendent of the dormitories, if not the steward. In this case he and his family enjoy the occupancy of a free dwelling.

The professor's term of office is usually one of six years. That of the principal is sometimes limited to the shorter time of State administrators; in Kussnacht (Zürich), for example, to three years. Shorter terms prevail in Hitzkirch (Lucerne), four, and in Rorschach (St. Gall) two (to be extended to ten years by reelection).

Salaries are either fixed or vary with the number of hours of work. The salaries of a few normal schools are as follows: State normal school of the Canton of Zürich, 3,000 to 5,000 francs;<sup>1</sup> Berne, 2,000 to 3,000 francs; Lucerne, 2,300 to 3,000 francs; Soleure, 2,000 to 3,200 francs; St. Gall, 3,000 to 5,000 francs; Grisons, 2,600 to 3,500 francs; Aargau, 3,200 to 3,500 francs; Thurgovie, 2,400 to 3,600 francs, with additions for age and personal qualifications; Vaud, 3,000 to 4,000 francs.

Remuneration according to the number of lessons per week is still in vogue to some extent on the basis of 100 to 200 francs (in Vaud 100; in Neuchâtel 200) a year per weekly lesson. In the Canton of Geneva salaries thus regulated are so adjusted that 200 francs are paid for the first 10 weekly lessons, 190 for the 10 following, and 170 for every following 10 weekly lessons. The differences are due to the fact that with an increase of lessons the quality of the instruction necessarily deteriorates. In some branches the remuneration exceeds the first payment of 210 francs (history of pedagogy, 225 francs).

The average salaries of private schools are less than those of State normal schools; on the other hand, city schools pay better than State institutions.

The teachers of a normal school form a faculty whose opinion on important educational questions is consulted by supervisory authorities. The unlimited power of the principal, formerly granted to normal-school principals, proved a constant stumbling block in the way of other teachers, whose cooperation for the prosperity of the institution was rarely sought in conducting educational affairs, and this unlimited power has, in most normal schools, been restricted by placing part of the responsibility on the body of teachers.

Sixty-six women teachers are employed in the female normal schools. Women teachers to the number of 33 are exclusively employed in both institutions of teaching sisters in Menzingen (Zug) and Ingenbohl (Schwyz) and in the female normal school in Brieg. All other institu-

<sup>1</sup>For convenience one may calculate 5 francs to be equal to \$1. The exact ratio is 1 franc = 19.3 cents.

tions employ men teachers, too, who, as a rule, form the majority. A few female normal schools engage no other than men teachers (Zurich), or a single woman teacher may be found teaching with a number of men teachers (Berne. Lausanne, Neuchâtel).

#### IV. STUDENTS.

The total number of male and female students at the 36 normal schools in Switzerland is 1,977, of which 1,294 are men and 683 women. Adding the 25 female students of the Froebel Normal School in Neuchâtel, there are 2,002 students of both sexes, men forming about two-thirds, women about one-third of the whole.

The female normal school of Zurich is the only one of its kind with a four year course. The four courses of the "teaching sisters" institutes at Ingenbohl (Schwyz) and Menzingen (Zug) are specially designed for the education of grammar school teachers and applicants for French schools. There are 11 normal schools for men with a four year course. The large institution of Soleure will soon advance into this category. The normal school at Rickenbach (Schwyz) is likewise included, as it has a preparatory course for those candidates whose previous education is faulty, or who have attended no grammar school. More than half of the new entries are of this contingent.

In most institutions students are conditionally admitted upon the results of a test examination. A shorter or longer probation is required for permanent admission. Citizens of the Canton, as a rule, pay no tuition fee, which is required only of foreigners and nonresidents. Where normal schools are only a part of a more extensive school system a moderate tuition fee is demanded (20 to 60 francs a year=\$4 to \$12).

Poor students are assisted with scholarships in most institutions. Zurich occupies the place of honor in this respect. In 1890-91, 118 of 153 pupils received scholarships, amounting to a total of 34,300 francs. The largest individual amounts, 400 and 500 francs, are given in the first and second and third and fourth grades, respectively. The average scholarship amounts to about 300 francs. As the board in private families costs about 12 to 15 francs per week (forty school weeks) the daily support of a student in Kussnacht costs from 500 to 600 francs a year; clothes, books, and school materials require an additional outlay of about 200 to 300 francs. The education of a school-teacher in Zurich consequently costs about 800 francs (or \$160) a year; or for the whole course, at the very lowest calculation, 3,000 francs, while the scholarships granted by the State to indigent pupils amount to 1,800 francs, at the very highest, for the entire course.

Vaud ranks next. Male and female students of both schools in Lausanne are assisted in their daily support by subsidies from the State, which vary from 20 centimes to 1.40 francs per day; the highest yearly scholarship (for three hundred school days) amounts to 420 francs. The



scholarships granted during the year of 1890-91 amounted to 28,702 francs.

As a rule, after having received their diplomas, students thus assisted are obliged to teach a number of years without compensation, or pay back the money advanced. Regulations on this point differ widely, the Cantons of Zurich and Valais being the extremes.

In Zurich pupils who afterwards do not apply themselves to teaching, or resign within ten years after leaving school, are required by law to pay back all advanced amounts. The following arrangement prevails in Valais: Before entering the normal school students pledge themselves to teach eight consecutive years in the Canton, or repay the subsidies received from the State in proportion to the time remaining. Regulations in the other Cantons vary within the above-mentioned limits.

The following statement refers to optional branches, as pursued by normal school students:

|  | Re-<br>ligion. | Ger-<br>man. | French. | English. | Italian. | Latin. | Piano. | Violin. | Organ. |
|--|----------------|--------------|---------|----------|----------|--------|--------|---------|--------|
| Kussnacht .....                        | 62             | .....        | .....   | 40       | .....    | 33     | 89     | .....   | .....  |
| Zurich .....                           | .....          | .....        | .....   | 22       | .....    | 11     | .....  | .....   | .....  |
| Unterstrass .....                      | .....          | .....        | .....   | .....    | .....    | .....  | 15     | .....   | .....  |
| Hofwyl .....                           | .....          | .....        | .....   | .....    | .....    | .....  | .....  | 87      | .....  |
| Hindelbank .....                       | .....          | .....        | 26      | .....    | .....    | .....  | .....  | .....   | .....  |
| Muristalden .....                      | .....          | .....        | .....   | .....    | .....    | .....  | .....  | 54      | .....  |
| Berne (female grammar<br>school) ..... | .....          | .....        | 85      | 20       | .....    | .....  | .....  | .....   | .....  |
| Berne (new female school) ..           | .....          | .....        | .....   | 10       | .....    | .....  | .....  | .....   | .....  |
| Schiers .....                          | .....          | .....        | .....   | .....    | 1        | .....  | 5      | .....   | .....  |
| Aarau .....                            | .....          | .....        | .....   | 7        | 11       | .....  | .....  | .....   | .....  |
| Sitten .....                           | .....          | 40           | .....   | .....    | .....    | .....  | .....  | .....   | 12     |

Where the students are not much restricted they feel, like other young men, the necessity of banding together in societies for mutual benefit. It is good for them to have experience in such affairs. As teachers they can not absolutely refrain from attending meetings of societies. Young teachers whose time is claimed to promote singing, gymnastics, and undertakings for the common benefit neglected by the community, often incur the danger of injuring themselves in trying to do too much for the common welfare. After they have once tasted the pleasure and pain of being a member and an officer of a society they are more circumspect in regard to the outgrowth of social life.

Singing societies have been formed in the normal schools of Unterstrass, Hofwyl, Schiers, and Lausanne; athletic clubs in Kussnacht, Unterstrass, Hofwyl, Rorschach, Schiers, Wettingen, Kreuzlingen, and Lausanne; stenographic unions in Kussnacht, Hitzkirch, Zug, Rorschach, Wettingen, Kreuzlingen, and Lausanne; reading circles in Kussnacht; societies for general purposes in Pruntrut and Peseux.

Where normal schools are a division of cantonal secondary schools, students of the pedagogical section are admitted into existing cantonal school societies (Soleure, Chur). Five hundred and sixty graduates of normal schools obtained the State diploma in 1891; of these, 297 were men and 241 women, and 22 women kindergartners.



## V. EXAMINATIONS FOR MATURITY OR GRADUATION.

Examinations for graduation of elementary-school teachers differ widely in the various cantons. In consideration of the large number and the extent of branches in which examinations are held, several cantons have arranged a timely division so conducted that at the end of the junior year a part of the examinations is completed (Zurich, Berne), or the theoretical examination is finished on leaving the normal school, and the practical is deferred until later (Lucerne, St. Gall); or, finally, the examinations are at once finished and the diploma conferred only on condition of subsequent practical service (Fribourg, Geneva).

The following examples serve as illustrations: In Zurich, after the conclusion of the third year, general and sacred history, history of pedagogy, geography, and grammar are concluded in a preparatory examination; mathematics and natural science are finished in another examination; the other theoretical studies and practical examinations are completed at the end of the senior course. Experience in teaching proves to be beneficial to pupils and secures better results in examination. The two years' probation preceding a definite appointment is designed to supplement the practical preparation.

A similar arrangement exists in the Canton of Berne for the examination of primary-school teachers. The preparatory examination is held a year before the final examination, and embraces the following branches comprised within the limits of the course of study for the first five semesters: Psychology, religion, German, grammar and rhetoric, mathematics, natural science, history, geography, and penmanship. The subjects for the final examination are the branches of the last two semesters in the above-mentioned studies; in addition, pedagogy and methodology, French, drawing, music, and gymnastics, as well as practical ability in teaching and training children.

The Canton of Lucerne gives a conditional certificate for a year, at the end of which pupils must pass another examination to receive the final diploma. The following arrangement prevails in the Canton of Fribourg: If the students have passed the first examination for diploma, the senior students, after leaving the normal school, serve a year's probation under a good instructor who directs them in practical teaching. Superintendents indicate to the public-school board the teacher under whom a probationer is likely to benefit most. After a year's probation the students undergo a second examination, the result of which decides whether a diploma is to be granted.

In St. Gall a conditional certificate is granted on the results of a final normal-school examination. After the lapse of two years, which must be spent in teaching, candidates take the examinations for graduation, which are based upon practical and general education. In Grisons, according to the applicant's accomplishments, diplomas of the first and second degree, accompanied by certificates of admission, are granted,

which permit the recipient to teach. To be eligible admitted teachers must secure a diploma by passing a new examination. The examinations for graduation are held at the close of the normal-school course; the examinations for admission to the profession at the end of a review course.

In Valais likewise a conditional teacher's certificate is given at the close of the normal-school course.

If, at the end of the year, the local school inspector hands in a report expressing satisfaction to the department of education, the candidate in question is allowed to teach four years longer. At the end of this time he is obliged to pass another examination to be permanently appointed as teacher. To comply with these requisitions most teachers, after an absence of five years, return to the normal school for a two-months review, which prepares them for the practical examination.

The Canton of Geneva differs from that of Fribourg in only one point. After receiving the diploma of the pedagogical section of the college, or of the secondary school for women, and devoting the specified time to practical exercise (probation), no second examination is required for permanent appointment, but only a proof of having taught at a primary school.

We find many arrangements directed toward supplementing and broadening the deficient practical preparation the normal schools offer, and preserving the consciousness in young teachers that they can only be successful in the practice of their profession by continually endeavoring to perfect their general scientific and special professional education.

At one normal school a permanent arrangement exists for aiding and promoting self-culture and review, repetition, or continuation courses (Vaud). For the purpose of elevating instruction in certain branches other normal schools from time to time institute regular and, occasionally, obligatory normal courses in methodology, singing, gymnastics, drawing, etc. Attendance is either compulsory or strongly recommended. Participants, as a rule, receive allowances from the State to help defray the increased expenses.

## VI. FINANCIAL CONDITIONS.

(1) *Buildings and grounds.*—The buildings occupied by normal schools are sequestered monasteries (Kussnacht, Pruntrut, Hitzkirch, Rickenbach, Hauterive, Rorschach, Wettingen), still existing monasteries (Ingenbohl, Menzingen, Zug), former inns (Unterstrass), old country seats, or school buildings which serve other educational purposes likewise.

A few examples will illustrate this. The normal school of Kussnacht possesses a main building for classes and the principal's residence, a gymnasium, a practice-school building, and an electric-power house. The accommodations of the normal school for women, in Hindelbank, consist of the parsonage, in which the principal and greater number of pupils live, a school building with gymnasium, hall with class rooms,

and a laundry. Some normal schools for men have large areas of land for agricultural purposes; others have a large garden for recreation and the growing of vegetables (Hofwyl, Delsberg, Muristalden, Rickenbach, Hauterive, Rorschach, Wettingen, and Kreuzlingen).

As a rule, the agricultural department is managed by a skilled agriculturist instead of the normal school principal. The most valuable landed property is controlled by the State normal schools in Hofwyl, Hauterive, Rorschach, Wettingen, and Kreuzlingen.

(2) *Income*.—The income of normal schools is derived from invested property, tuition fees, board, and incidental sources. The income from real estate is generally very small. In boarding schools the income is either expended "in natura" for housekeeping (Hofwyl, Hitzkirch, Rickenbach, etc.), or the produce delivered for general use is rated and noted in the account book under income and expense (Rorschach, Wettingen, Kreuzlingen).

As in most normal schools instruction is gratuitous, the income derived from tuition fees hardly amounts to 30,000 francs for all of the 37 normal schools. Most of this is paid by nonresidents or foreigners. Board, which sometimes includes the tuition fees, amounts to about 160,000 francs for all the 12 boarding schools.

Receipts independent of appropriations granted by the State and communities are limited to contributions of societies and individuals for the benefit of private schools, and amount to about 60,000 francs a year. The total income of the 37 normal schools, not including amounts granted by the State and communities—as far as information goes—amounts to about 250,000 francs, or \$50,000, and does not cover one-fourth of the necessary expenses.

(3) *Expenses*.—An examination of the yearly expenses in connection with normal school education is attended with the greatest difficulties. Normal schools, which are only a division of a more extensive educational system, keep no separate accounts; in most cases, authorities have not even attempted to make the detailed, though not impossible, distinction. Information on this point is therefore inaccurate and incomplete. A few calculations are based upon the author's own estimate attained by a comparison with other information received. The result obtained should not conflict with the actual expenditure, and should be rather less than greater.

An annual sum of 1,000,000 francs is spent on normal school education in Switzerland; with 2,000 students this gives an average of 550 francs (\$110) per student.

Half of this goes toward salaries and one quarter toward the living expenses in boarding schools. It is very gratifying to see that most cantons are ever more willing and generous in extending a helping hand to those students who are zealous but poor. The information received concerning scholarships, though not altogether reliable, states the annual amount thus spent to be above 150,000 francs.



The apparatus at normal schools seems to be generally very simple and inadequate. The expenses for school-room necessities are very low, hardly exceeding the amount of 30,000 francs.

#### CONCLUSION.

The examination of normal schools in Switzerland proves that everywhere diligent and earnest efforts are being made to promote the cause of normal education; that teachers may be qualified in a proportionately short time with the general education and professional knowledge and ability requisite for the practice of their vocation; but that uniformity of action presupposed by the united public does not exist. There are no unifying measures taken. All is individual effort. Strong and progressive institutions do not support those that are weak and backward. These institutions do not even hold free, common council. Teachers at Swiss gymnasia, or secondary schools, meet at least once a year to discuss mooted questions affecting their work. The normal schools of Switzerland are not only separated from the other higher educational institutions in their own canton, but each normal school occupies an isolated position in regard to the others.

It would be quite inadmissible to speak of the necessity of Federal interference in the question of normal school education, though national unity could be thus most effectually promoted [says Grob], but it seems our duty at least to point out the desirability of general intercourse among the normal schools of Switzerland, and express the hope that visiting normal school teachers consider themselves the bearers of a national spirit, and miss no opportunity in their travels throughout the State to preserve old associations and form new ties of feeling and action.

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#### VIII.—MENTAL FATIGUE IN SCHOOL.

For several years the subject of mental fatigue in secondary schools in Germany has been discussed with much show of ardor, and school authorities in that country have frequently been assailed for expecting too much work of the juvenile brain. Representatives of the science of hygiene, feeling themselves called upon to substantiate these charges, subjected some schools to a rigid test. Leo Burgerstein, of Vienna, and others, notably Professor Hoepfner, of Berlin, were successful in presenting statistical results which were in every way reliable, because scientifically obtained and tabulated. Professor Burgerstein presented his results in the form of a diagram, called the "fatigue curve," before a meeting of the Society of Hygiene in London (1892), and at other places; and Hoepfner published in 1893 a little book in which he presented the results arrived at accompanied with very impressive language. Both gentlemen are practical school men; and their words and figures made a deep impression. Later Professor Kraepelin published a work on the "Limits of mental capacity in youth" (1894), in which he made use of the before-mentioned tests, and added others, reviewing



the question with great erudition from a physiological and psychological standpoint. This attempt to substantiate the statement that the German high schools, both classical and modern, make demands upon the mind, which youth can not live up to without serious injury to health, has naturally created an opposition which deserves to be heard, inasmuch as overpressure has often been said to exist when on various occasions comparisons were instituted in this country between German and American schools. Dr. Gustav Richter, a man of great erudition and practical experience, gives voice to the opposition in an article published under the caption "Instruction and mental fatigue" in "*Lehrproben und Lehrgänge*," Halle, Germany. His arguments are the more acceptable since they are advanced with candor and laudable impartiality. An extract from his article is here inserted. Dr. Richter says:

The opponents of our present school system, ever since Lorinser's famous book appeared, have used the catchword "mental fatigue" as a weighty argument against the organization of the entire system of secondary schools. In numerous pamphlets caused by the fierce educational struggle raging in Germany, evidences for and against this assumed fact have been furnished, and new material, statistical and otherwise, has been published which urged school authorities everywhere to counteract by real or assumed improvements and revisions of the courses of study, the dangerous excess of demands upon the youthful brain. Nevertheless, a solution of the burning question has not yet been reached.

No investigator has been able to state the laws of mental growth in the age of development other than in general lines; nor has anyone been able so clearly and distinctly to define the beginning of fatigue and the statics of mental capacity for the different steps of the juvenile period of development so that schools could derive from them useful regulations for the minutiae of practical work. In reply to Preyer's essay on "Natural Science and School" I have emphasized that no single professional science as such can have the privilege of determining aims and methods of school education, but that only to pedagogy can be given the right to do that, it being the general science of education. But I have acknowledged that pedagogy must listen to other sciences and use them as supplementary sciences. With reference to natural sciences, I said: "They must state the amount of elementary knowledge from the various fields of science necessary for general foundation of higher study. This is a task which, though it may seem simple, is by no means accomplished with unanimity by the representatives of higher education. Second, natural science must give us the conditions and laws of physical development, and, as far as is possible in connection with that, also of psychical development. From this may be derived the right to supervise the schools from a medical standpoint, and to examine with reference to hygiene the buildings and everything appertaining to them.

The first of these two tasks Lothar Meyer has earnestly tried to perform. The second task has recently been tried by Emil Kraepelin, professor of psychiatry in Heidelberg. His work, entitled "Concerning Mental Labor" (Jena, G. Fischer, 1894), is an eminently useful one, because in place of glittering generalities, such as "excessive demands upon the gray substance of the young brain," and "excessive accumulation of knowledge in the undeveloped brain," he offers scientifically gathered facts which represent tests and observations beyond criticism. And yet his conclusions are wrong. How that is possible will be seen if we review his work from the standpoint of experience.

He first investigates the limits of mental capacity in youth. School [he says] makes daily demands for a certain measure of brain work without being convinced that the juvenile brain is able to perform such work without serious injury. We send the ship out upon the open sea without a trial trip, that is to say, without

knowing whether it will be seaworthy. In order to obtain reliable information concerning this we must examine the conditions of fatigue in children.

The author starts out with tests made with adults. He says:

That which we can determine with great accuracy is the working power of the individual in simple mental performances. To measure them we may utilize a number of small tasks of equal difficulty, and problems to be solved within a given time, as, for instance, counting of letters, reading, memorizing rows of numbers, syllables and words, a continuous adding of simple numbers, and similar work. All this work was carefully examined by him, but he only gives us the result obtained in adding numbers. The persons tested were students in the university, assistant professors, young men who were of nearly equal education and age. In exercise books specially prepared for the purpose, the professor made them add without interruption the figures printed. When the sum of one hundred was reached the hundreds were omitted and the addition of units was continued. At intervals of five minutes a signal with the bell was given, and a line was made under the figure added last. When the results were examined, it was found how many numbers in periods of five minutes each person had added. This clearly showed the degree of velocity with which different persons work. This result will be found in every kind of simple action. The difference in individual capacities will plainly show up. This kind of test simply proves the individuality of personal capacity and nothing else.

Common experience has taught us that the performance is greatly influenced by the amount of exercise one has in it. The rapidity in adding will increase with every test, until a certain limit is reached beyond which this velocity can not be increased by exercise.

The extent of capacity for exercise seems to the author to be a general quality of the individual. He who proves himself very capable in gaining skill in any one field of action is apt to increase his velocity in working in other fields. Whether a similar statement can be made with reference to the power gained by exercise has not been investigated sufficiently, but it may be stated that a skill once obtained is not lost very rapidly. After several months the author plainly noticed the skill gained by the exercises in addition mentioned before, though they had lasted only a few hours.

Professor Kraepelin has also discussed fatigue. According to the views of modern physiology, fatigue is a chemical process in the organic cells. The working muscle secretes waste material, which is poisonous. The stronger the brain activity, the more copious is this secretion of the brain cells. Their environments are contaminated, the poison gets into the blood and through the circulatory organs it comes in contact with the nerves and cells of other parts of the body. With the aid of oxygen it is consumed in the blood or destroyed by the liver, or discarded through the kidneys. When this decayed matter accumulates in the blood we feel fatigued; if we exceed the physiological limits we become diseased (compare Mosso's "Fatigue"); but there seem to be also psychic factors in the process of fatigue for which a physiological explanation is difficult.

The progressive increase in the capacity for work through exercise is opposed by the effects of fatigue, which progress much faster. Fatigue everywhere causes a decrease in the amount of work performed, although this decrease may be equalized for a time by increasing skill. As soon as fatigue takes the upper hand the capacity for work vanishes quickly and incessantly.

The author further points to the differences in the fatigue limit of individuals and shows that nevertheless all persons, aside from special well-founded irregularities, exhibit in all kinds of work a similar process in harmony with the given individuality; hence arises the fact of the extent of individual endurance. This is the fundamental quality of each individual, and it determines in general the capacity for work.

Aside from the general state as to fatigue, there are other elements that seem to be open to determination by measure. Thus, for instance, the fixation of the degree of diversion to which a person is subject; the elasticity of his capacity for work, that is to say, the power to equalize disturbances; the dependence of mental power of work upon the amount of nourishment, the duration of sleep or physical exertion. Finally, as a supplement to the measurements of velocity, must be considered the investigations concerning the value of work, which will be exceedingly difficult. At any rate the author has demonstrated that it is actually possible "to express important peculiarities of a mental personality in numbers and comparative ratios."

Yet, after all, it appears to me [says Professor Richter] as though in the methods of investigation applied the measurement of the fatigue limit can not be determined with the same accuracy with which the extent of capacity of exercise or skill can be determined. Mental fatigue is not only dependent upon the performance of work, but also upon accompanying conditions of the emotions. It is a well-known psychological fact that feelings of displeasure will facilitate fatigue, while feelings of pleasure will check it. The inner relation of the individual to the work he is performing is a factor which must be considered in investigating his fatigue limit. The author has not entered into that side of the question, and hence the results of his investigation can not have a convincing character. To add continuously for several hours numbers of a single digit is such a tedious work that it generates a feeling of displeasure which will facilitate fatigue and injure the elasticity of the mind. It must be deplored that the persons examined by Professor Kraepelin were only tested with reference to their velocity in working, not to the correctness of their work; only with reference to the extent, not to the value of the work. It is true the mathematical fixing of the part which interest has in the work will meet with insurmountable obstacles. Mental life consists of such complex processes that every attempt at a mechanical explanation must be stamped at once as inadequate. If the author had given to the persons to be examined a number of interesting problems from their own field of labor, which would, of course, have prevented the test in velocity, he would doubtless have come to other results in reference to the phenomena of fatigue. Moreover, the success each person attained would have changed the entire result in many ways.

In discussing the fatigue of school children the author refers to investigations of practical schoolmen, the results of which have been published in recent years. Leo Burgerstein, in Vienna, placed four rows of simple arithmetical problems before the pupils who were familiar with their solution. Each period of ten minutes of written work was followed by a recess of five minutes. These problems or tasks he submitted to 162 children, in the age between 11 and 13, at the beginning of a school day. During the intervals of recess new blanks containing the problems were distributed, and at the tap of the bell the pupils again went to work, and so on through the morning session. The performance was measured with reference to its amount by the number of problems solved in each period of ten minutes, and the value of the performance was measured by the absence of mistakes. He



was careful, also, to consider the corrections which the children had made during the work.

The result shows that the number of digits used had increased from period to period, demonstrating thereby a considerable average increase in the velocity of work. This increase, however, was made by only 92 pupils, while 70 lagged behind.

The increased velocity is accompanied by an increased number of errors. This, again, is true only with reference to those who progressed rapidly in speed, while those who lagged behind showed relatively fewer errors. The following table shows the general results:

| Periods of 10 minutes. | Digits worked with (about). | Number of mistakes. | Mistakes in per cent of digits. | Mistakes in per cent (about). |
|------------------------|-----------------------------|---------------------|---------------------------------|-------------------------------|
| 1. ....                | 28, 200                     | 851                 | 3.01                            | 3                             |
| 2. ....                | 32, 500                     | 1, 292              | 3.98                            | 4                             |
| 3. ....                | 35, 400                     | 2, 011              | 5.67                            | 5.7                           |
| 4. ....                | 39, 500                     | 2, 360              | 5.98                            | 6                             |

The small increase in the number of errors between groups 3 and 4 is remarkable. It seems as though the children had unconsciously meant to rest in order to start anew in the fourth period. With the rapid increase in the number of errors is noticed an increasing number of corrections. The fewest corrections are made in the third period. Fewer corrections and a greater increase in the number of errors are undoubted evidences of mental fatigue.

Similar observations were made by Hoepfner in Berlin when investigating the work of 9-year-old boys written from dictation. They had been occupied with 19 sentences for nearly two hours, and the work had been careful and slow. In this case, also, the number of errors, which were at first small, increased rapidly toward the end of the work. Computed on the basis of 100 letters, the errors increased from 0.9 to over 6.4 per cent. Kraepelin refers again to the tests in addition to which he had submitted his students and assistant professors, and he states that each thirty minutes of work was followed by a recess of ten minutes. It was noticeable that the work after each pause was more rapid than in the preceding period. He explains this fact by the influence which practice has in generating skill, and by the fact that fatigue is counteracted during the pause of rest. Fatigue disappears comparatively quickly, while the gain in skill remains, and can be noticed for a long time after.

From this we may derive a lesson and a valuable principle for practice in the school-room; it is that by inserting short pauses between periods of work the power is increased and the destructive effect of fatigue is counteracted; the gain in form of skill is very great, whereas skill might be destroyed if the pauses were not inserted. Hence Kraepelin demands more frequent pauses, and he claims that it would be wise to increase them in length as the school session proceeds.

I shall return to this point; and at present quote the author, who thinks he is accurately sketching the condition of school children during instruction. The picture he presents is, according to his own expression, a frightful one:

Since it is demonstrated [says Kraepelin] that 12-year-old pupils show the first signs of fatigue after a period of ten minutes in simple work, it stands to reason that mental work lasting through several hours, only broken into by brief periods of rest, must inevitably lead to complete mental exhaustion. The intensity of attention



demand is much too great. The pauses of rest are much too short, and a normal capacity for work can not be maintained under such circumstances. After the first hour of that kind of work the pupil will be in a narcosis of fatigue which makes him incapable of applying his strength to understand and follow the instruction. It stands to reason that this condition shows variations in different pupils and ages. The younger ones are, as a rule, so tired after the first hour that the powerful influence of exercise and skill gained are not able to counterbalance the progressive decrease in the capacity for work.

Not without amusement one reads what the author adds to this picture in gray upon a gray background: "But I freely confess that the picture is painted in colors too dark. As I have described it, the situation would be correct if school accomplished what it attempts. However, kind nature has given our growing generation a safety valve, the value of which can scarcely be gauged too high; it is that of inattention. Only with force, and even then for a very short period of time, can we succeed in securing the attention of our pupils upon the solution of problems given them. Nowhere is there a school in which a whole session can be considered a session of work. Burgerstein, it is true, believed that the inserted pauses would secure a proper relation between effort and recreation in any regular school hour. Yet his tests prove incontrovertibly that our youth would necessarily incur mental disease if they were forced to work steadily and with intense attention for forty minutes of every hour of the school day. That comparatively few are seriously injured mentally by overexertion in school is owing to those branches, and likewise to those teachers, that give to the pupil the blessed opportunity to loosen the reins of his fatigued attention and to forget himself. "We can force pupils to sit still," says Burgerstein, "but we must not deceive ourselves, for in many cases they will rest mentally or rest by obtaining a change of mental occupation and not follow the course of instruction when they are tired. From this the unexpected conclusion is derived that tedious teachers, so-called preaching teachers, have become a necessity. If all teachers understood how to awaken intense interest for their subject of instruction and how to keep it awake, the children would, despite rapidly growing fatigue be led to ever increasing efforts, the consequences of which could scarcely be gauged."

So, then, inattentive pupils and tedious teachers are the necessary contrivances to break the speed of the rapidly running school machine. This is a contradiction of ideas that borders on nonsense: A school is the better, the worse it is.

However, joking aside, there is a grain of truth in this paradox. There are teachers who with iron energy hold the attention of their pupils in such tension that for other branches, especially during the lessons immediately following those of the energetic teacher, the pupils are absolutely unfit for work and consider it a blessing when the teacher lays fewer or no claims upon their strength. And among the inadequacy of all human institutions the school of the future, like the present, will suffer from human imperfection, and will be grateful if nature in her kindness will equalize in her own inimitable way the errors of poor mortals. However, that is neither here nor there. Above all we must find out whether the conclusions of the author are unobjectionable. They start from facts experimentally secured. Have these conclusions convincing power?

We need not appeal to human imperfection. It can be shown that the conclusions of Professor Kraepelin are erroneous, because they start from wrong premises. If in a pupil 12 years old, after a simple kind of work of barely fifteen minutes' duration, the first signs of fatigue are noticed, a continuation of that work, broken into by brief pauses only, would lead to utter exhaustion. To this conclusion leads the presupposition that a single form of written work entered upon with well-defined intention (for instance, that of examining the mental capacity) may be taken for, or confounded with, the general term instruction. In this lies the key to the erroneous conclusion. The author evidently presupposes that the organization and pur-

pose of school claim that the children be kept at the same tension all through the hours of the school day in which they had been kept during the trial lesson, which consisted of test work and mechanical repetition of processes. If this supposition were correct—that is, if these tests were really a photograph of the general working of school instruction—the author's conclusions might be considered sound, for lessons of that kind have all the characteristics the uniform effect of which is a deadening pressure upon the juvenile brain. Let us try to define these characteristics.

It is plain, first, that test work such as was described will hold the thoughts of the pupil exactly in one direction. The same nerve currents, the same ganglia cells are kept in uninterrupted activity. This is the cause why nothing is so fatiguing as uniform mental exertion. Second, such work forces all the pupils simultaneously to the same degree of exertion. The pressure is a constant one, acting upon all alike. Finally, the work obliges the pupils, during the entire time it takes to perform it, to a certain position of the body, which increases fatigue. It is quite obvious that the enforced uniform position of the body necessitates one-sided exertion of certain groups of muscles, while others are kept idle. Feelings of displeasure are generated thereby, which check the activity of the brain.

However, the real average condition of the process of teaching and learning in school, if conducted by a reasonable teacher, is very different. Certainly school demands the attention and participation of the pupil during the whole school day. But as the direction of the instruction within each branch changes frequently, the degree of mental tension it claims for the pupil's activity varies greatly.

Burgerstein makes the same mistake with reference to his test work when he says: "During the time of instruction every participant should, as it was done here, be occupied constantly."

Professor Uhlig, in reviewing Kraepelin's volume, remarks: "I do not in the least doubt the exactness of these tests, but I claim that it is erroneous to draw the conclusions which the author publishes, for these experiments placed the children before a whole series of tasks in the same field of action, the doing of which required a specially high degree of attention. Now, it would be erroneous to assert that the practice in school throughout is analogous to this procedure, or that it should be analogous. If every lesson of the day should demand so high a degree of tension as these test lessons did, school, as it is now conducted, would be subject to the accusation of the most frightful waste of time. No school works constantly in the manner indicated."

The beneficial influence of change upon mental activity is a fact to which the school pays a good deal of attention, both with reference to the order in which the branches follow in the time-table and with reference to the method of teaching within each single lesson. Every instruction following correct methodical principles will show variations in the mental tension demanded of the pupil, according to the amount of self-activity or passive acceptance of knowledge required. There is also a variation of the mental activity depended upon or caused by the different objects in view; that is to say, whether lessons are given in which natural objects are viewed or accomplishments—such as drawing, singing, writing, and the like—are practiced, or whether intense thinking is required, as in arithmetic. It can not be tolerated to occupy the children with grammar or mental arithmetic for hours at a time. A teacher who does such a thing is breeding mischief and should be severely reprimanded.

Every lesson in itself offers a great many opportunities for change in mental activity. The processes of apperception and abstraction, exercise and application of which each claims a different psychical activity, change places very frequently. It is well to emphasize this. In language lessons a poem or a piece in the reader is treated. First, a brief review is held by appropriate questions; then the piece is explained with reference to contents and form. The progress of the action or the development of the thought is followed. Finally comes the exercise in expressive

reading. The different psychical actions are alternately at work. Now it is judgment, another time it is the power of apperception, and again it may be a play of emotions. This constant change prevents fatigue.

During a lesson in foreign languages translation from and into the language takes place; sentences and paragraphs are read; the linguistic form is analyzed; the thought is fixed; the recasting of a thought in the other language is attempted; contents are explained; grammatical exercises take place, alternating with forming and re-forming of sentences; the etymology is studied, and the practice of rules takes place, etc. All these things cause constant changes in the mental activity of the pupil, which prevent fatigue. History, geography, and nature studies offer the greatest variety, both with reference to the matter and method. Even abstract mathematics claims a variety of changes by seeking points of contact with sense perception, and hence permits many pauses of rest from mental tension. Moreover, there are various modes of presenting and solving problems, all of which cause variety.

It is admitted that the pupil can not be spared earnest mental work; but that it should be in the nature of our educational aim that its work must necessarily lead to exhaustion can be positively denied. Sound common sense and the rules of didactics protect the pupil sufficiently. Herbart says: "When the pupil is really fatigued by, not merely being displeased with, certain subjects it is well, as far as possible, to let this feeling subside or be counteracted before the same subjects are taken up again in a somewhat different form." Mosso expresses himself in a similar manner, saying: "The best teachers are those who never overexert one region of the brain of their pupils and who understand the art of attracting the attention, now here, now there, so that it may after awhile with new vigor return to the subject at issue."

Upon such application of method depends the refreshing, revivifying effect of good school instruction. There is recreation in change. If proper pauses for rest are arranged, and if these pauses are spent in the open air, while the schoolrooms are thoroughly aired by opening the windows, and if gymnastics and games are provided for, I really do not know what more could be offered to the growing generation both in regard to physical and mental development. Fatigue taking place after protracted tension can be removed by the two chief remedies which are found in change in occupation and complete recreation. This balance would be much more effective if school had only to deal with healthy children; but we must consider the many weak children who suffer from poverty of the blood and who do not during their school years receive proper nourishment, nor get sufficient sleep, nor enough of other important agencies for hygienic development. It can not be doubted that the school in many cases remedies the errors made at home. The healthful discipline which accustoms the children to regular mental activity, the proper change between work and recreation, the habitation in well aired and lighted rooms, bodily exercise and movement by means of gymnastics and play, as well as in school excursions, a habit acquired in obedience, order, punctuality, and cleanliness are for many children a deliverance from destruction and ruin.

Professor Richter then goes on to quote figures obtained from test work to which the pupils of the gymnasium in Jena were subjected; they are very interesting, and their value is great owing to the scientific method pursued in obtaining the results; but they are omitted here because they essentially repeat what has been said before.

A few words concerning hygienic school statistics may conclude the chapter. Prof. Otto Jäger, in Cologne, in reviewing Kraepelin's and Erb's books, says, that in an experience of forty years both in small and extensive educational institutions he had very rarely found nervous-



ness among the school diseases. He could, if called upon, draw up a counter-bill of cases in which the nervous system of spoiled mother's sons had greatly improved as soon as they had been required to live a regular school life. "Say what you will, and take it all in all, the life within a large public school is on an average a very healthy life."

The drawing up of such an account, to which doubtless other educators could add contributions, would be a very meritorious undertaking. The observations made on nervous children would be supported by numbers far inferior to those of healthy children. It is true, we have not as yet a thorough science of school statistics, but various attempts may be quoted. Prof. Axel Key, of Stockholm, states in his school-hygienic investigations (1889) that in Sweden the children in the upper grades of the common school had fourteen hours of daily work. Thirty-six per cent of the girls are chlorotic, and about 10 per cent of them suffer from spinal curvature. Aside from nearsightedness he found in the schools of Sweden and Denmark that nearly 40 per cent of the children suffered from chronic diseases. This exhaustion and wasting away of strength among the children he ascribes to overtaxing, to the enormous amount of school tasks with which they are burdened. The school physician and professor of hygiene in Budapest, Dr. Heinrich Schuschny, says in a recently published pamphlet entitled "Concerning the nervosity of school children," that in a certain institution which he names, 46.4 per cent of the pupils in the four lower grades suffered from symptoms of nervousness, and that this proportion rose to 57 per cent in the four upper grades. Still more unfavorable is the result of the observations of Professor Nesteroff, in Moscow, who for four years observed 216 students of the gymnasium of that city. He noticed that the proportion of pupils suffering from nervous ailments rose from 8 per cent in the preparatory grades to 67 per cent in the highest of eight grades.

Now, how shall such figures be judged? A few hints are given us by Professor Schuschny. A great proportion of the pupils examined belonged to the Jewish population, who, according to the author and the verdict of medical specialists, are overburdened and oppressed. I can not judge whether this is true, but from further explanations of the author I judge that a large number of these pupils belonged to the poorer strata, who are early in life forced into occupations for the purpose of winning their daily bread.

Often the pupils could only make their attendance in school possible by giving private lessons to little boys; several of them had to support parents. There are in our school students who give private lessons for three or four hours a day; others are obliged to help their parents in stores and shops; one student has to rise at 4.30 o'clock in the morning in order to aid his uncle.

Another hint refers to the intimate relation between the use of stimulants and nervousness.

Of our students 47.7 per cent use alcoholic beverages at home, mostly wine. I found that the greater number of these students suffered from nervous symptoms.



Their proportion to those students who use alcoholic beverages but do not suffer from nervous symptoms is 56.8 to 43.1 per cent, an obvious proof of the influence of alcohol upon the nervous system.

It is to be regretted that a statement concerning the amount of alcoholic beverages consumed at home can not be taken into consideration. It would likewise be important to obtain statistics on the influence of nicotine upon the nervous system of schoolboys. I can bear witness to that influence by stating that a senior student twice declared that he had been obliged to be absent from school because he had temporarily poisoned himself with nicotine through cigarette smoking. Investigation at home proved the correctness of the statement, and the advice given to the parents, either to forbid or to limit the enjoyment of cigarettes (the school as such can only forbid smoking in public), was successful only in one of the two cases. Schuschny inquired into the duration of sleep of his pupils, and found that among nervous children it was too short. He does not mention the nature and quantity of their food, although concerning this point very interesting facts might be gathered. The time after school hours and on holidays is not spent in the most advantageous way.

Is there to-day a pupil of a high school who has not at least once in his life seen a Parisian drama on the stage in which adultery is the chief motive, and then think of the books and modern newspapers. Very few parents attend to the physical development of their children; few ever take their children out for a walk in the open air and into the woods. A diminishingly small fraction of our school boys and girls make use of the skating pond in winter or the swimming school in summer.

I have quoted these statements of Schuschny's, although they have no reference to German conditions, in order to indicate what difficulties are in the way of a proper estimate of statistical material; and what a want of logic it betrays if physical disturbances in children are without hesitancy attributed to the influence of school life. Mosso declares this in his investigations as an absolutely insurmountable difficulty, so that we can not say how many of the boys might be healthy and how many might be ill, if they did not go to school at all.

Schuschny mentions, among the causes of overtaxing, the fact that in Hungarian secondary schools the departmental system of teaching is in general vogue. According to this every branch of instruction is assigned to a specialist, hence in a school of nine grades we may find as many as 11 teachers changing places within a single school day in a single class room. The physician makes some very pointed remarks concerning this.

This system frustrates the educative efforts of school. In Germany every teacher has to teach a group of relative branches, and in every room a class teacher, who has charge of the discipline and attendance roll, has the largest number of hours per week to teach in that class room. In Bavaria the class teacher teaches everything save mathematics and natural science. To the class teacher is assigned the duty

of keeping in constant contact with his collaborators, so as to secure an organic unity of class instruction and prevent the accumulation of home lessons. Specialists always have the aspiration to magnify their branches and demand a degree of attention and interest which can not be maintained uniformly all through the day unless a class teacher restricts these demands to their proper limits. .

In regard to this system we have no statistics, and all our arguments are based on individual experience, the whole tenor of which, however, is so obviously convincing that there can be no doubt as to one thing, namely, that the system of specializing will foster special talents in a few robust thinkers and mentally dwarf the great majority of average talents.

The introduction of well planned and regularly compiled school hygienic statistics is not only desirable, but a requisite of the school of the future. The science of statistics thus properly supplemented will, to a more satisfactory degree than hitherto, influence the various conditions of the growing generation. It will investigate the physical status of the pupils, and thus offer the material for investigation concerning the reciprocal relation of life in school and life in the family. Not until then will the troublesome question of overtaxing the brain be solved in a scientific way. Any State that would begin with obtaining such statistics would deserve great credit. I suggest a few important points: The Government should appoint a commission consisting of physicians and educators and assisted by executive officers. In this commission should be an expert in hygiene and psychiatry (if possible, he should be a university professor), several practical educators, and the State school commissioner—the latter should be the president. This commission should be charged with preparing schedules of inquiry, formulas, and blanks to be filled out. The statistical data gained from these local census returns would have to be not only counted, but also weighed in the light of (*a*) the climatic and geographic location of the city; (*b*) the architecture of the schoolhouse, together with its hygienic condition; (*c*) attendance; (*d*) the number of hours per day and week, recesses, and other things. The foundation of hygienic statistics would be the medical examination of all pupils at the time of their admission to the school. These data should remain in the hands of a physician, and should have reference to weight, size, digestion, pulse curve, blood pressure, diseases passed through, abnormalities, and similar things, about which a professional man can best judge. Georg Hirth remarks justly that it is a mistake to merely give the age of pupils and not also their condition of health medically certified. For newly admitted children a record should be established, and at least an annual examination should take place, which would periodically add items, and thus show a rate of progress or deterioration. Side by side with these general data each pupil should have a column of his own in the record, which might contain items concerning his nourishment, sleep, condition

of place for work and for sleep; that is to say, the amount of light, heat, etc. And it would seem very desirable to note down in what manner the children fill out the pauses between lessons and sessions. Not until a uniformity of execution of such statistical investigations is secured will it be possible to judge properly the question of physical and mental development of youth; and not until then shall we be able to decide the weighty question of overtaxing the brain.

Some may say that these are plans for the millennium. That may be, but if only a few States, small though they be, carry these plans into execution, their results will give a standard measure for other schools and countries. The German nation has at all times had the duty of performing mental work to a higher degree than others, being, as it were, placed in the geographical center of a continent and endangered from all sides, and having to undergo a competitive struggle with all the nations of the civilized world. Without great effort in mental labor youth can not be instructed successfully, and certainly can not be accustomed to prolonged effort unless it is done while the natural powers are still plastic. By lowering the demands and yielding to the complaints of weaklings the process of degeneration will be accelerated and the whole nation will gradually sink to a lower level of culture.

One thing is plain without any statistics. The more readily the life of the nation and the customs of the people return to simplicity, modesty, and inner health the easier it will be for the school to train a healthy race. And again, only when the trainers of the youth are what the young generation is to be will their work be successful. Now, the trainers of youth, however, are not merely the teachers in school, but every one whose example is before the youthful eye, and chief among them that of the parents. Hence every one must begin with himself. Self-control and self-education of the adult are the best discipline of youth. If we only preach and leave to others to do the work, we shall not succeed in warding off the beginning of degeneration, unless frightful catastrophes come to our aid.

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#### IX. NATIONAL FEATURES OF FEMALE EDUCATION.

By Prof. STEPHAN WAETZOLDT, councilor of education in Magdeburg, Germany.

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The science of education has only recently begun to sever itself from speculative theories and turn toward historic development of the momenta that constitute it. There is still too much system and theoretical construction, while unbiased observation and fixation of facts are not as frequently found as desirable. Rarely are the forms of the education of a time or of a country viewed in connection with the entire development of the people. Comparative pedagogy is still in its infancy. The questions, How does a nation, an era, a society arrive at



a particular form of education? and, Why is it a historically necessary result? present themselves to us.

He who has accustomed himself to understand historically that which exists in the education of our people, and compares it with the work and the results of other nations upon similar lines, will not be apt to believe in the possibility or utility of direct copies and adaptations, he will try to understand and to explain, but will refrain from copying; for in the end every nation finds that which is best adapted to its needs, and finds it in its own way.

Such considerations crowd themselves upon us when we view the education of women of our era, when we try to find the ways it is to go and the aims it is to seek. May I be permitted to suggest a few characteristic features of woman's education as found in nations akin to ours? Let us not forget that the most pressing necessity is not found in universities for women, nor in the participation of women in the scientific labor of the times, nor in the opening of higher professions for women, but in the care and extensive education of the millions of girls, indeed, for the education of the mothers of the coming generations. The graceful structures of a higher education and the capstone of the edifice will remain insecure until they can rest upon the broad and secure foundation of a general education of the people. A State which neglects this and promotes higher education exclusively works for show, and neglects the general weal of the people while it may satisfy the desires and claims of a noisy minority. Let us not forget that more important than the results of intellectual education, which are easily recognized and estimated, are the ethical effects of education which are taken into life and manifest themselves as determination of the will, a quality which is not easily estimated, because not visible to the eye.

Some uniform historical features of woman's education are found in the nations of the Occident; thus, for instance, in the early Middle Ages the beginning of higher education was more frequently found among the women of the nobility than among the men. At that time there was no appreciable difference between the intellectual education of women and men. At the close of the Middle Ages, Vives lamented the fact that the female sex was almost everywhere excluded from intellectual light. In the epoch of the birth of the modern state and the modern man, in the era of the Renaissance, there came up in France, in Italy, and in Germany the question of female education simultaneously with the consciousness of personal rights and duties. The Reformation then separated, as it were, the two worlds, and created two kinds of culture, the Germanic Protestant and the Romanic Catholic. Female education in the Romanic countries remained in the hands of the church and within the walls of convents, while in Germanic countries it was extended and liberated by the influences of Protestantism.



Once more the civilized world of western Europe was stirred up by a current of new ideas during the era of enlightenment and humanity. In pamphlets, profound books, romances, and comedies theorizing was indulged in concerning the education of women; it was considered a purely human education. Even the poet Jean Paul thinks the woman happy because she alone, without reference to the demands of a profession or an occupation, could indulge in educating herself to pure humanity. There seemed to be no need for any special education for her. Necessity, the great specter, did not, as yet, knock at her door. But at about the middle of this century the problem of finding occupation for women outside of the family arose simultaneously in all industrial states, and with it arose the necessity for special preparation for distinct professions, which necessity was derived from the ever-increasing difficulties of the hard battle of life. The machine had actually taken the work out of the hands of the women; the number of single women without occupation grew rapidly, especially in the middle strata of the people. Hence the problem of woman's education became of general interest to society and the state. Meanwhile, in the Atlantic States of the New World a type of women, psychically foreign to the Old World, has been formed, a new ideal of womanhood and woman's occupation. The American woman appears on the stage.

Every nation and every era entertains an ideal of the woman according to which it intends to educate the girls. This ideal may change, but it bears abiding national features. Poets sketch it, and in writings on woman's education it is reflected. In France this ideal consisted for a long time in the "*honnête femme*," in the sense of Molière; this gradually changed to the "*femme du monde*," meaning the word in an acceptable sense; finally this ideal assumed the features of the "*citoyenne*." In England the type of the wife of a country gentleman or a clergyman, that is of the gentle lady seems to have predominated. In Germany the ideal bears the dear features of a pious, good "*haus-frau*," which the shy, demure maiden is to take as her model. These ideal pictures are becoming dim in outline everywhere. Something new is wanted. Shall it be the "*femme savante*"? We are aware of the fact that the aforementioned types are those of the women of middle and well-to-do classes. It was much later that consideration was bestowed upon the children of the people—that is, the daughters of peasants, workingmen, and skilled laborers. Only one State has the proud satisfaction of having done so very early, and that is Prussia.

Woman's education in France, as in all other Romanic countries, was determined exclusively by the views of the church, both with reference to contents and form. Only at a very late period and, as it were, in leaps the development of public girls' schools took place. Up to the Revolution (1789) France had no elementary schools for girls. The duty of the State to take care of the education of girls was first recognized in a bill advocated by Talleyrand in the year 1791. That

bill provided that schools should be established for cases in which the education of girls in the family was found impossible or inadequate, and it was based on the principle that girls should be trained for the family and in the family. The idea of schools for girls returned to the surface under Condorcet. He demanded that up to a certain age instruction should be given to both boys and girls simultaneously; hence I believe I have found in his plan the beginning of the idea expressed in America by the term coeducation. Neither Condorcet's plan nor Lakanal's law of the year 1794, which resulted from that plan, was ever realized. The Republic, it is true, had passed the law, but it had not the teachers to execute it. In the great Napoleonic system of a university of France, which embraced all public institutions of learning in the land, woman's education found no place. When, in 1793, the liberty of instruction had been proclaimed, girls' education passed over into the hands of the clergy and private boarding schools, which were managed according to the views of Madam Campan. Even to-day the French rural population prefers girls' elementary schools taught and managed by nuns or "sisters," and for daughters of the highest strata of society convent education is considered the only correct education. From this arises, in France and in other Romanic countries, a peculiar contrast between the views of the world as held by the men and the women of the same nation, while with Germans and the English people in the most extensive strata the education of both sexes is essentially the same (girls and boys in the villages attend the same school, have the same teachers, and are taught according to the same principles and the same course of study); in France the two sexes are actually, by means of education, led to different religious and political views and principles. To close this gap it was thought to educate the girls above all to a "citoyenne," but the new laws, in operation since 1872, have not been able to accomplish that as yet. Elementary education for girls was first secured thirty years ago by Guizot and Duruy. The important organic elementary school laws of 1882 and 1886 are intended to result in a new condition of things; they are hastening the development of the system and are intended to lay a firm foundation. According to these laws every community with more than 400 inhabitants is obliged to establish a girls' school. Except in small villages and settlements, all instruction of girls is reserved for women teachers. It is characteristic that the organization of general elementary instruction of girls under the Third Republic took place later than the legal organization of secondary schools for girls, but both were undertaken with outspoken political tendency and consciousness of definitely breaking with the views of the past.

Also in the field of secondary education for girls the fundamental legislative ideas are traced back to the greatest of ministers of instruction France ever had, M. Duruy. The law of Camille Sée, of December, 1880, then created the *Lycee de Jeunes Filles* upon democratic and

atheistic foundation, and with a strong leaning toward the institutions of higher boys' schools; but at present the desire is felt to bestow more attention upon the feminine qualities of the students, or, as the technical term has it in France, to "feminize the programmes." The system of public schools for girls in France has not grown up from below in its own organic development, it has not assumed forms caused by the changing needs of the time, but it is, so to speak, a construction from the idea; the idea rules reality. The admirably clear, consistent structure of the entire system is decidedly French. French also are the management, the detailed courses of study which go into infinitesimal minutiae, rules, and regulations. The logical consequences from a realization of the plan were drawn regardless of historic facts. To the women teachers were opened the same institutions for professional preparation that were open to men; under presuppositions of equality the women were admitted to the State examinations; the admission of women to university studies was facilitated; higher normal schools for women teachers intending to teach in secondary schools were established. In the same measure, however, in which woman's education in France entered the arena of public education the girls found themselves exposed unsparingly to the customary contention caused by ambition for prizes, diplomas, scholarships, etc. Competition and rivalry in examinations increased. The human being who is that by the grace of examinations only is now being bred and trained in girls' schools of France also; the external success has become an essential motive, and the easily teachable mediocrity wins the victory. Outside of large cities this new girls' school of France finds little support. Church, family, and the people's instinct conduct a secret war against it with zeal and vigor. Let us not be blind to the fact that in judging the effect of the whole system the metropolitan institutions and results are not the proper standard.

To sum up, modern France, in accordance with the tendency of the national spirit, which leans toward logical construction, built up its system of female education rather more in obedience to an idea than to pressing needs.

Quite different was the way England proceeded. England is the classical land of historical forms, of vigorous individuality, of creative associations, of self-government and self-administration, the land of practical purposes. Education in England is supported by the family, the church, corporations, and school communities. The State, as such, participates in the management of the school system directly only in one way, namely, as money spender. The State establishes and manages no schools; it merely supports them and controls the expenditures. A difference in principle regarding contents and form has never in England existed between the education of boys and girls. Since the ancient languages and mathematics are considered to this day as decisive studies in the two ancient universities, Cambridge and Oxford,



the young English women of necessity turn in the same direction. Of necessity also the preparatory school below the university teaches these branches, in the study of which the girls participate.

Up to the fifth decade of our century England owed its systematic efforts in behalf of public education for the children of the people to two denominational corporations. It is a peculiar but very evident fact that the great Church Reformation in England did not exercise the same advantageous influence upon public education that it had done in Germany. Its influence was felt more in the higher strata, and not as with us among the real people. In Scotland, on the other hand, where under Knox the Reformation penetrated all classes of society, there developed a general parochial school system, which elevated the Scotch elementary schools far above those of England. In England the State showed sympathy for the condition and instruction of the children of laborers for the first time in the forties by passing factory laws. Lord Cranborne expressed the opinion in the House of Commons that it was better for children to work in factories than to learn all sorts of useless trash in poorly ventilated schoolrooms. This was the time when Parliament made the first appropriation for school buildings and created a royal school authority, which had power to appoint inspectors, whose duty it was to watch over the expenditures of the appropriations, which were not regular but provisional. This money was distributed, and is to this day distributed, according to a badly reputed system of payment by results. Normal schools for the professional preparation of teachers were and are now very inadequate in number and extent. The so-called monitorial system in vogue in Lancaster's schools was generally adopted, and has been replaced by a system of pupil teachers, which is in use to the present day. All schools were private or church schools. Large, rapidly growing, industrial cities, numbering hundreds of thousands of inhabitants, had almost no schools for the masses. On August 9, 1870, after the extension of the franchise, Parliament passed the elementary school law. Within fourteen years after the passage of that law the number of school children increased from 1,000,000 to 4,000,000. Forster's law exclusively regulated the external affairs of the people's schools and conscientiously guaranteed the liberty of communities and their right to self-government. Nevertheless the law met with violent opposition, and its enemies have not all disappeared yet. "For the first time," said a clergyman, "in the history of England a despotic power lays tracks for the human mind." Opposition to compulsory education is not entirely vanquished to this day. As is done in France, a large percentage of the children leave school at the conclusion of the eleventh year of age. In the streets of large cities, on the moors, and in the fields of the open country there are still roaming many hundreds of girls who receive no instruction, and still more of them would never see the inside of a school did not charity reach out its helping and saving hand.



The institutions of England for higher education of women have been frequently discussed with us during the last few years. But all these institutions and enterprises are for the benefit of the daughters of a minority which, according to German standards, are well-to-do. All these institutions are based upon peculiar national English customs and traits, both of life and education. They are all private enterprises, neither demanding nor expecting anything from the State—institutions that would jealously decline interference on the part of authority. No course of study accepted and confirmed by the State binds them; their establishment and management, their methods and aim, are not subject to State control. Those numerous well-educated and socially well-regarded but poor families that we find in Germany representing the army officers, the higher civil officers, the judiciary, the teachers, and the clergy, are entirely wanting in England, where the two extremes, wealth and poverty, touch each other. The irony in the contrast between the education given to the broad strata of the people and the luxury of education offered to the wealthy is very plainly noticeable in the education of the girls. From the elementary school there is no way into the well-equipped high schools and colleges for women. But it is gratifying to observe the self-dependence, the energy, the tenacity with which English women conquer and successfully maintain the possibilities of culture which are open to men. Higher education for women in England is entirely the work of English women. All institutions serving it stand under woman's direction and employ almost exclusively female teachers. This enormous growth is the work of scarcely more than thirty years, but centuries had prepared the way by creating for the English woman of the higher classes that prominent position she occupies in the family, in society, in the moral and intellectual life of the nation.

Characteristically English is, on the other hand, the exclusive direction of girls' education upon a practical aim obtainable by an examination. To express it in brief, there is a desire for an education according to pattern and stamp. It is not the free development of an intellectual personality, but of the final performances in examination to which the work of long years is directed. From the smallest local examination to the much-dreaded tripos at Cambridge there is spanned across the globe a net of English examinations. No one intending to reach the end can escape its meshes. It is expected and demanded of every pupil and of every student that his or her work be a preparation for an examination in view. We therefore find, in place of general humane education, a specialization which begins too early; instead of the free, unhindered work of a teacher, a laborious drudgery in mastering a certain amount of prescribed knowledge—prescribed, of course, by an examination. I vividly remember the flaming protest published in the fall of 1888 in the *Nineteenth Century Magazine* by 396 men of science and public life against this system, which crushes the most talented and

best intellects among girls and boys, and distorts the aim of education and transfers the principle of the race track and its technical term, "training," upon intellectual performances. This weighty protest gave rise to the appointment of a royal commission of inquiry into the questions of secondary education. The result of the commission's work has recently been published, and aims at an improvement of the boys' education, which will of necessity also promote and improve girls' secondary education.

English, Dutch, and French colonists transplanted the ancient European culture into the new land across the water. The women of the early settlers learned to brave the dangers of loneliness and wilderness. The conditions of their lives were favorable for the development of independent character and strong will. Women are rare at first in colonies, hence the charm they give to the house, and the grace and steadiness they bestow upon a roving existence is valued highly and bought dearly. The American women defend right, morals, and good manners inexorably. While rough combat for life and sustenance claims the men, the finer intellectual interests are readily yielded to women. The richer and easier the gain is, on new soil, the more will domestic care diminish. Immense distances gave to the American character something expansive, a feeling of unlimited possibilities for life, activity, and gain; a joyful elasticity of soul, a consciousness that nothing human is beyond his reach. These traits are found in the American woman also. She is accustomed to claim consideration for her free self-determination; her inclinations and aspirations scarcely find opposition in state and society; she wants to enjoy equal rights, but also claims equal duties. The circumscribed world of her home has become too small for her. Her ruling influence in education and questions of culture is advancing into the older Atlantic States. No difference is made between boys and girls in education in the United States. From the primer to the doctor's hat there is free intellectual competition for both sexes on the same school benches, in the same lecture room, under the same professors. A great hunger for education characterizes the American man, and even more so the American woman. The importance of schools for the public weal can never be valued higher than it is done in the United States. Women form the majority of the participants in educational congresses. The powerful movement on foot in favor of popular high schools, the so-called university extension, which had its rise in England, is essentially supported by women. Young ladies and women of more advanced age take up their residence in the slums of metropolitan cities in order to establish social settlements for the express purpose of forming a nucleus for education and improvement of the forsaken and abandoned. Girls are in the majority in the upper grades of the public schools as well as the high schools, and with the exception of universities and colleges the female sex takes the front rank among teachers and learners. The majority of all schools in the

United States maintain coeducation. That boys are to be educated to be men, that girls are to be women, and hence that they must be educated differently—this self-evident principle seems to be forgotten in America. Already nature begins to avenge herself. The American woman is slowly degenerating in consequence of her emancipation. As she leaves the sphere of her home to enter the great market of life she becomes less able and willing to fulfill natural duties. This is the opinion of distinguished physicians and clergymen. The woman question will, in the near future, assume a new aspect in the American Commonwealth. It will then no longer be able to disregard the physical and mental difference in sex which nature and civilization have created, and for the sake of the continuance of the state which can not be guaranteed for all time to come by vast supplies of immigrants from the Old World, the American education of women will have to obey the dictates of nature again.

Let us return to the conditions in our own country. Luther thought that the magistrates of all the cities in Germany should establish good schools both for boys and girls. The Prussian kings from Frederick William the First, whose order in the year 1717 laid the foundation for compulsory school attendance, made no difference between boys and girls in public education. The Reformation and the Hohenzollern dynasty created the Prussian people's school, and this institution serves both sexes equally. As a *quantité négligeable* may be considered the number of girls between 6 and 14 in Prussia who are not enjoying regular instruction by professionally prepared teachers holding State diplomas. That which is wanting in the people's schools is a sufficient number of female teachers, whose educative influence upon the girls of the upper grades could do much good in the domestic and moral habits of our rural population. In Russia thousands of women teachers keep up a fight against the powers of darkness in the most remote hamlets and villages. With us here in Germany very few women teachers are willing to serve as rural school-teachers and take upon themselves the duties which presuppose a renunciation of social and other comforts; they all rush toward the cities. The problem of female teachers has with us been considered exclusively a question concerning city schools.

I take it for granted that you are acquainted with the history and development of our secondary schools for girls. The external characteristic historical momenta are: (1) Gradual growth of private foundations; (2) slow formation of aims and method in close contact with the needs of the time; (3) then active participation of the communities in establishing and maintaining public secondary schools for girls; (4) a tendency to extend these schools to make them normal schools for the preparation of female teachers; (5) a great variety in courses of study and division into classes, from which variety only in recent years a uniform type has developed. I may also mention the fact that the



State left these schools alone for many years and spent all its strength and means upon the people's and the boys' preparatory schools. It did this with the well-understood object in view to prepare the officers of the State and the leaders of the nation. Only with hesitation the State authorities began to subject the girls' schools to regulations such as were issued for boys' schools.

These are the external characteristics, but there are also internal characteristics. They are: (1) The religious-ethical spirit of the whole; (2) the preponderance of men teachers, especially in the upper grades and in the educative branches; (3) the one-sided attention to literary, æsthetic interests, of which the disproportionate importance given to history of literature is a characteristic; (4) finally, the great variety of professional preparation of teachers in this kind of school; (5) above all, peculiar to these schools is the direction and transmission of a general education such as ladies of better situated classes of society require. At present the professional preparation has on principle been severed from the school of general culture. No examination threatens the student at the conclusion of the course of study. The schools bestow no honors; give no privileges and no diplomas. These circumstances give to the instruction of a good, thorough teacher an invaluable amount of freedom, which permits concentration, absorption, and contemplative repose, and in this I recognize an undeniable advantage for our schools.

As yet the lecture rooms of our universities are open only to very few women; as yet the professions which do not agree with the constitution of woman, and for which the State demands an academic preparation, are still closed to them, while in other civilized states the women have succeeded in securing admission. Is this fact explained simply by the unjust valuation of woman's work, by undervaluation of woman's capacity, by the imperiousness of man and his anxiety lest woman's competition will interfere with his success? Let me say, first, that the State with us is not only a police institution to protect life and property, but its object is the promotion and equalization of all interests of culture. It is obliged to ask, with every newly arising claim, whether and in how far it meets recognized needs. It is a sound and safe policy of the public-school authorities not to interfere with things that are only beginning and developing, but to give time and space for healthy growth; not to feed and nurse young forms artificially, but to wait patiently and see whether they have a vigorous life and find good soil among the people. To remodel anything ancient that has long stood the test in order to introduce something new that has not as yet proved its value is always doubtful. Now, with us, as it is well understood, the condition for academic or university study is the graduation diploma, which is granted alone by classical high schools, called gymnasia. But we have no gymnasia for young ladies. Shall the State establish them? Prussia is not wealthy enough for that, and should we really lead our



girls upon an educational path which is exclusively designed and planned for boys intending to devote themselves to the higher professions and offices of the State? Shall we for the girls fix a course of study with the authority of the State, a course which many and many of us think badly needs reform? When, as in Berlin, Leipsic, and Karlsruhe, private gymnasia for girls are established in order to give them an education such as the boys' schools offer, the State authorities certainly do not interfere or prohibit it. The first Prussian female graduate has passed her examination well. That which is wanting in the realm of higher education of women here in Germany is not so much favors from the State as great philanthropists, such as Rockefeller and Holloway, and wealthy corporations, such as the Brewers' Guild in London, which gave large donations for the higher education of women. Such means flow very scantily in Germany, as the interest for our aspirations is not very extended as yet among the people. More pressing needs claim the strength and means of the State.

And yet excellent things have been done with us; three Prussian universities have opened the doors of the philosophic faculty to women teachers; a scientific examination gives to the best of them a higher aim and in their school work a broader track than formerly. We may hope that the profession of medicine will be opened to the woman, as far as it may become a profession for them, and as far as the needs of the State may be congruent with their desires. He who refers to America, England, or France in this connection forgets or overlooks the fundamental difference in German and foreign universities and the culture which they offer. The German university is, as Paulsen states it, both a laboratory for scientific investigation and an institution for the highest scientific instruction; hence it is more than a higher professional school. The university professor is considered in Germany a scientific investigator at the same time that he is a teacher. This unity of investigation and instruction gives to the German university its peculiar character. But the claims and demands for preparation and the conditions of admission are very much higher than in other countries, where a student only seeks a limited professional education, as in France, or an extension of his general education, as in England and America.

An institution like the Victoria Lyceum here in Berlin would, if it were established in England or the United States, unquestionably be called a university. Look at its list of lecture courses of a single academic year. There is scarcely one of the great sciences that is not represented. The list of professors exhibits distinguished names in philosophic, economic, historic, philologic, geographic, and physical investigation. For the first time in the history of this school a theological course and physiological lectures are opened. Almost all the fields of mental life are cultivated. Its work is greater and more profound than that of many a foreign university, hence we have every

reason to rejoice over our accomplishments, though we are fully aware of the fact that much is still to be done.

To look at that which is our own must not narrow down our mind, must not prevent us from looking beyond our own boundaries and appreciating what others have done; attainments in foreign countries will induce us to renewed efforts. With reference to the higher education of women in Germany, let us proudly quote Goethe's words: "This much is ours, this much let us maintain." And let us add: "Upon this foundation let us continue to build."

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#### X.—PUBLIC INSTRUCTION IN THE GRAND DUCHY OF LUXEMBURG.<sup>1</sup>

In the Grand Duchy of Luxemburg (area, 1,000 square miles; population, 212,000) there were, in the year 1894-95, 3 gymnasiums or colleges, 1 commercial and industrial school, 1 agricultural school, 1 normal school, 755 primary schools, 8 girls' boarding schools, 26 day nurseries, and 499 schools for adults.

Of the higher institutions of learning, the progymnasium at Echternach had 10 professors and 93 students; the gymnasium at Diekirch 16 professors and 246 students; the gymnasium at Luxemburg 25 professors and 507 students; the commercial and industrial school at Luxemburg 24 professors and 322 students.

The course of study in these gymnasiums covered the following branches: The German, French, Latin, and Greek languages; religion, mathematics, history, geography, zoology, botany, physics, philosophy, drawing, and gymnastics. The study of the English language was not compulsory.

The branches taught in the industrial school were: Religion; the German, French, and English languages; mathematics, history, geography, physics, drawing, and stenography.

The following branches were taught in the commercial school: Religion; the German, French, and English languages (Spanish and Italian were optional); history, geography, commercial arithmetic, commercial science, commercial law, commercial correspondence, technology, political economy, and stenography.

The Luxemburg gymnasium and the industrial and commercial school together form the Luxemburg Atheneum, an institution with 49 professors and 829 students.

Applicants for admission to the lowest class of any of these colleges must be at least 12 years of age. The course of instruction occupies six years. In the industrial and commercial school each pupil pays for tuition in the three lower classes \$8 per annum; in the three higher classes, \$12 per annum. At the gymnasium in Diekirch the charge for tuition ranges from \$8 to \$10 per annum. In the other

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<sup>1</sup> Reported by George H. Murphy, vice-commercial agent.

gymnasiums tuition is free to needy pupils who pass their examinations creditably.

The total amount paid by the Government in salaries to the 75 professors in these four colleges is about \$52,000 per annum, the average salary being \$700.

The so-called schools for adults were, in the year just ended, mostly (466) public schools. There were 336 schools for males, with 5,069 pupils, and 130 for females, with 3,090 pupils. Most of these pupils were from 13 to 18 years of age. A large majority of the schools were open less than five months during the year, and even then only for a few hours once or twice a week. In 24 of the boys' schools only drawing was taught. In the others instruction was given in from two to five branches: Drawing, arithmetic, geometry, bookkeeping, and German or French.

Of the 130 girls' schools, 43 were devoted entirely to needlework. Instruction was given in the others in from three to eight branches: Needlework, arithmetic, bookkeeping, housekeeping, hygiene, natural sciences, and German or French.

Most of the teachers in these schools were regular primary school-teachers, who in this way added a small amount to their incomes. The entire amount paid to the teachers of these 466 schools for adults was about \$11,600, an average of less than \$25 per teacher.

The following statistical tables describe concisely the status of primary instruction in this country:

#### I.—Pupils.

|                            | Num-<br>ber of<br>schools. | Pupils.  |        |                                 |        |                                 |        |         |         |         |
|----------------------------|----------------------------|--|--------|---------------------------------|--------|---------------------------------|--------|---------|---------|---------|
|                            |                            | In the obliga-<br>tory age (6<br>to 12 years). |        | Above the<br>obligatory<br>age. |        | Below the<br>obligatory<br>age. |        | Total.  | Boys.   | Girls.  |
|                            |                            | Boys.  | Girls. | Boys.                           | Girls. | Boys.                           | Girls. |         |         |         |
| Higher primary schools ..  | 23                         | 48   | 116    | 277                             | 641    | .....                           | .....  | 1,082   | 325     | 757     |
| Ordinary primary schools.. | 740                        | 14,088   | 14,010 | 781                             | 605    | 770                             | 695    | 30,949  | 15,639  | 15,310  |
| Day nurseries .....        | 26                         | .....  | .....  | .....                           | .....  | 658                             | 728    | 1,386   | 658     | 728     |
| Total .....                | a789                       | 14,136   | 14,126 | 1,058                           | 1,246  | 1,428                           | 1,423  | a33,417 | a16,622 | a16,795 |
|                            |                            | 28,262   |        | 2,304                           |        | 2,851                           |        |         |         |         |

a Including 21 private schools with 994 pupils, of whom 237 were males and 757 females.

#### II.—Teachers.

|                             | Schools. | Male<br>teachers. | Female teachers. |       | Total. |
|-----------------------------|----------|-------------------|------------------|-------|--------|
|                             |          |                   | Lay.             | Nuns. |        |
| Higher primary schools ..   | 23       | 20                | 8                | 62    | 90     |
| Ordinary primary schools .. | 740      | 415               | 185              | 142   | 742    |
| Day nurseries .....         | 26       | .....             | 11               | 18    | 29     |
| Total .....                 | 789      | 435               | 204              | 222   | a861   |
|                             |          |                   | 426              |       |        |

a Including 79 teachers in private schools, of whom 9 were males and 70 females, 61 of the latter being nuns.

## III.—Salaries of teachers of public primary schools.

|                                | Teachers. | Total amount of salaries, inclusive of value of lodgings supplied. |
|--------------------------------|-----------|--|
| Higher primary schools .....   | 26        | \$7, 429. 54   |
| Ordinary primary schools ..... | 737       | 151, 431. 10   |
| Day nurseries .....            | 19        | 1, 511. 19   |
| Total .....                    | 782       | 160, 371. 83   |

This last table shows that in the year 1893-94 the average total earnings of each primary school-teacher in the Grand Duchy of Luxemburg amounted to about \$205.

The following table shows the total and average earnings of male and female teachers in the various grades of public primary schools, inclusive of the value of lodgings supplied:

|                                | Male teachers. | Total amount of salaries. | Average salary. | Female teachers. | Total amount of salaries. | Average salary.   |
|--------------------------------|----------------|---------------------------|-----------------|------------------|---------------------------|-------------------|
| Higher primary schools .....   | 13             | \$6, 213. 64              | \$478           | <i>a</i> 13      | \$1, 215. 90              | <i>a</i> \$93. 50 |
| Ordinary primary schools ..... | 413            | 100, 383. 53              | 243             | 324              | 51, 047. 57               | 157. 00           |
| Day nurseries .....            |                |                           |                 | 19               | 1, 511. 19                | 80. 00            |
| Total .....                    | 426            | 106, 597. 17              | 250             | 356              | 53, 774. 66               | 151. 00           |

*a* Nine of these teachers resided in convents.





## CHAPTER XI.

### EDUCATION IN THE NETHERLANDS.<sup>1</sup>

SOURCES OF INFORMATION.—Official reports: *Jaarboek van het Onderwijs in Nederland*.—*Verslag van den Staat der Hooge, Middelbare en Lagere Scholen en het Koninkrijk der Nederlanden*.—*Wet van het Lagere Onderwijs*.—*Wet van het Middelbaar Onderwijs*.—Report of consul, United States, May, 1889.—*Vor Ungdom*, 1891.—*Schmidt's Encyclopedia*.—*Buisson, Dictionnaire de Pédagogie et d'Instruction Primaire*.—*Statesman's Yearbook*, 1893.—*Revue Pédagogique Belge*.—*Revue Internationale de l'Enseignement*.

Minister of the interior, 1893-94: Tak van Poortvliet.

Inspectors of primary instruction: First circuit, Mr. J. B. A. J. M. Verheijen, te 's Hertogenbosh (November, 1880) (North Brabant, Gelderland, and Limburg); second circuit, Mr. J. C. Fabius, te Delft (April, 1890) (South Holland, North Holland, Zealand, and Utrecht); third circuit, Mr. A. G. A. Baron Sloet tot Oldhuis (April, 1890) (Friesland, Overijssel, Groningen, and Drenthe).

District school superintendents, 25.

Arrondissement school superintendents, 94.

#### CLASSIFICATION OF SCHOOLS IN CONFORMITY WITH LAWS GOVERNING PRIMARY, SECONDARY, AND SUPERIOR INSTRUCTION IN HOLLAND.

##### *Primary instruction.*

- (1) Public primary schools supported by the State (Government) or communes.
- (2) Private primary schools (subsidized and nonsubsidized).
- (3) Home instruction.
- (4) Infant schools and asylums.
- (5) Primary instruction in prison schools.
- (I) Normal schools maintained by the State.
- (II) Normal courses maintained by the State.
- (III) Normal schools maintained by the communes.
- (IV) Normal schools and courses maintained by private corporations and persons.

##### *Secondary instruction.*

- (1) Burgher schools supported by communes.
- (2) Higher burgher schools supported by communes.
- (3) Higher burgher schools supported by the State.
- (4) Higher burgher schools supported by private citizens.
- (5) Industrial, drawing, and trade schools.
- (6) State Academy of Liberal Arts.
- (7) State normal school for the training of drawing masters.
- (8) Schools for the training of Government officials for the Netherland-Indies.
- (9) Agricultural schools.
- (10) Polytechnic school.
- (11) Military and naval schools.
- (12) Veterinary schools.
- (13) Training schools for midwives.
- (14) Schools for deaf-mutes, blind, idiots, etc.

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<sup>1</sup>By Miss Sophia Nussbaum.

*Superior instruction.*

## (A) PUBLIC.

- (1) State universities (*a*) of Leyden, (*b*) Utrecht, (*c*) Groningen.
- (2) University of Amsterdam supported by the commune.
- (3) Gymnasias and progymnasias.

## (B) PRIVATE.

- (1) Free University of Amsterdam.
- (2) Denominational theological schools, preparatory schools, Latin schools, colleges, etc.

## THE NETHERLANDS.

## I. CENTRAL GOVERNMENT.

The first constitution of the Netherlands after its reconstruction as a kingdom was adopted in 1815 and revised in 1848 and 1887. By virtue of this charter the Netherlands is a constitutional hereditary monarchy.

The executive power of the State belongs exclusively to the Sovereign, while the whole legislative authority rests conjointly in the Sovereign and Parliament, the latter consisting of two chambers, called the States-General. The Upper or First Chamber is composed of 50 members, elected by the 11 States from the highest assessed inhabitants and from certain high and important officials specified by law. The Second Chamber of the States-General numbers 100 deputies and is elected directly from among all the male citizens who are 30 years of age and are not deprived by judicial sentence of their eligibility or the administration and the disposal of their property.

The Government and the Second Chamber only have the right of introducing new bills, the functions of the Upper Chamber being restricted to approving or rejecting them, without the right of amendment.

## II. LOCAL GOVERNMENT.

The territory of the Netherlands is divided into 11 provinces and 1,123 communes.

Each province has its own representative body, "The provincial states." The members are elected for six years directly from among the male Dutch inhabitants of the province who are 25 years of age, one-half of the members retiring every three years. The form of election and the mode of procedure in this body are the same as that for the Second Chamber of the States-General. Voters must be inhabitants of the province. Representation is based on the population of the province, and numbers from 80 for South Holland to 35 for Drenthe. The provincial states are entitled to make ordinances concerning the welfare of the province, and to raise taxes in accordance with the law. All provincial ordinances must be approved by the King. The provincial states exercise the right of control over the municipalities and elect members of the Upper Chamber of the States-General, and see that

the common law is executed in their provinces. They meet twice a year, as a rule, in public. A permanent commission, composed of 6 of their members, called the states deputies, is charged with the executive power in the province and the administration of its affairs. Both the deputies and the provincial states are presided over by a commissioner appointed by the Sovereign, who in the former assembly has a deciding vote, but in the latter only a deliberative voice. He is the chief magistrate of the province. Only the members of the states deputies receive an allowance.

Each of the communes forms a corporation, with its own interests and rights, subject to the general law. Every commune has a council elected for six years by the same voters as for the provincial states, provided they are inhabitants of the commune; one-third of the council retires every two years. All the Dutch male inhabitants of 23 years of age are eligible for the council, the membership of which varies from 7 to 39, according to population. These councils have the right of making and enforcing by-laws concerning the communal welfare; they may raise taxes according to rules prescribed by common law, and each commune receives a fixed annual allowance out of the State treasury. All by-laws may be vetoed by the Sovereign. The municipal budget and the resolutions to alienate municipal property require the approbation of the states deputies of the province. The council meets in public as often as may be necessary, and is presided over by a mayor, appointed by the Sovereign for six years. The executive power is vested in a college formed by the mayor and two, three, or four aldermen elected by the council. This college is also charged with the execution of the common law. The municipal police is under the authority of the mayor, and as a State functionary the mayor supervises the actions of the council, and may suspend their resolutions for thirty days, but is bound when so doing to inform the states deputies of the province.

The area of the Netherlands is 12,648 English square miles.

Population, 4,732,911, according to census of December 31, 1893, or 372.20 inhabitants per square mile. Of the total population in 1893, there were 2,341,484 males and 2,391,427 females.

*Religion.*—According to the terms of the constitution, entire liberty of conscience and complete social equality are granted to the members of all religious denominations.

#### HISTORICAL SKETCH OF EDUCATION.

Holland has always been among the leading countries of Europe in the educational line; in fact, the Dutch Government was the first one in this century to promulgate official school laws, viz, in 1801, 1803, and 1806.

The first school known in Holland was founded in Utrecht by Willebrod, the first bishop of the Frisians, who in 690 landed on the shores



of the Netherlands. This school attained great fame, and it is said that Pepin, the son of Charles Martel, was educated there. The educational influence of the apostle of the Germans, St. Boniface, was very noticeable. Under Gregory, one of his scholars, this town assembled within its walls the studious youths from all the neighboring countries (*quidam autem et de Baguarus et Suevis*). During the invasion of the Normans this school was suspended, but in the year 917 it was reestablished, and soon attained its former splendor. The three sons of Emperor Heinrich der Vogler (Henry the Fowler), Otto, Heinrich, and Bruno, were educated there. The latter, who was Duke of Lorraine, while archbishop of Cologne, was known for his great learning. In the beginning of the twelfth century Utrecht had no less than 5 flourishing schools, some of which had, besides the clergymen, who were superintendents, a *rector scholarum*.

At the same period several monasteries achieved distinction as schools of learning, among them those of Egmond, Nijmegen, Middelburg in Zealand, and Adouwert near Groningen. During the twelfth century the influential communes of Holland and Belgium established, in addition to the cathedral, cloister, and ecclesiastical institutions, communal schools for the burghers and the common people. The privilege to open such schools was always obtained from a count, who conferred it either upon cities or private individuals as a special favor. The instruction in the communal schools in Holland, unlike those in Belgium, was withdrawn entirely from the supervision of the clergy and became essentially secular. Grants were made to the following cities: To Dortrecht in 1290, by Count Floris V; 'sGravenhage 1322, Leyden 1324, Rotterdam 1328, etc., by William III; Delft and Amsterdam 1334, by William IV; Leyden again in 1357, Haarlem 1389, Alkmar 1398, Hoorn 1358 and 1390, The Hague 1393, Schiedam and Oudewater 1394, Rotterdam 1402, by Albert of Bavaria. The Dutch communal schools were divided into principal and branch schools, and in the former Latin was taught. John Cele's school, which was of this class, enjoyed an excellent reputation in the fourteenth century, and is said to have numbered as high as 1,000 pupils of all nationalities. The Hieronymians, who founded the Society of the Brethren of Life, established numerous schools during the fifteenth century, in which the poor were taught gratuitously.

The first university of Holland, in Leyden, was founded by William the Silent in 1575; a second was established at Franeker in 1585; and in the eighteenth century three universities were opened, respectively, at Utrecht, 1638, Groningen, 1644, and at Herdervijk in 1648. Many celebrated men of science and philosophy occupied chairs at these institutions, including Grotius, Spinoza, Dousa, Huyghens, Gronovius, Heinsius, Perizonius, Raphelengius, Schultens, Meursius, and Boerhave. The learned Pope Hadrian IV was born in Utrecht. The universities and Latin schools maintained their reputation during the eighteenth

century, but popular instruction was not developed in the same degree, for the methods used were purely mechanical and tended to extinguish the intelligence of the pupils rather than stimulate it.

At the beginning of the nineteenth century (1811) Cuvier made rather an unfavorable report on the condition of the universities and Latin schools of Holland. The government established by Napoleon I introduced certain reforms which were subsequently ratified and developed by King William I. Dutch legislation regarding primary instruction has attracted the attention not only of writers, but of the Governments of various countries, on account of its hostility to the principle of denominational schools. The first impulse to an improved system of primary instruction in Holland was given by John Nieuvenhuysen, a Mennonite clergyman in Groningen, who founded in that city in 1784 the Society of Public Good (*Maatschappij tot Nut van't Algemeen*), whose objects were to promote elementary instruction—moral, social, and religious. This society was very successful and the Government supported it in its efforts. The basis of the Dutch system was laid in the celebrated law of 1806, prepared by M. van den Ende. This school law remained unchanged until 1857, when amendments were made. The primary instruction act of 1857 was supplemented by another act of August 18, 1879, making important alterations which tended to extend public education. It was again considerably altered by the act of December, 1889. This last act gave unrestricted liberty to the establishing of private schools whereby public instruction is diminished. The Government, however, retained absolute supervision of all private schools. The constitution of 1848 placed all religious denominations on an equal footing. The principle of secular and coeducational schools had at first the assent and support of ministers of every creed, including the Roman Catholics; but after 1848 a general opposition developed against this plan. A new party of orthodox Protestants started, named after Groen van Prinsterer, a prominent professor and writer, and these claimed that the Roman Catholics were strictly carrying into execution the law of 1806, as they excluded in their teaching everything of a doctrinal character, even the Bible itself. In the endeavor to check the anticipated advances of the church the Groenists, who were in a small minority in the chambers of 1857, when the new educational law was framed, attacked the principle of the schools, denouncing them as breeding places of atheism and immorality and demanding in their place denominational schools which should provide religious instruction. The majority was composed of Roman Catholics who preferred to exclude religious instruction entirely from the schools rather than it should inculcate Protestant ideas, liberals who were in favor of a total separation of church and state, and dissenters of every denomination. The important question of denominational and nondenominational schools was fully discussed in the legislature. The result was that the non-denominational character of the school system was maintained, but with

modifications of its general details. The retention of the word "Christian" education in the law gave great offense to many members of the Liberal party favoring nondenominational schools, but the Roman Catholics especially insisted upon expunging the word "Christian," as they declared that practically it meant Protestant, and most of them voted against the law because the word "Christian" was retained. The law, however, was passed by a large majority and public instruction in Holland remained nominally Christian, but in a sense so broad that it would have been expressed better by the term "moral." The law of 1857 provided that while public instruction should impart all necessary secular knowledge and develop the understanding of the pupils, it should at the same time train them to the practice of every Christian and social virtue, and also provided that primary schools should be conducted at the expense of the communes. Two modifications had taken place in the Dutch school system from 1806 to 1848, to wit, the establishment of normal schools in 1816 as an integral part of the system, and a change in the administration of the private schools for the middle classes, for these were found upon inspection to be inferior to the public schools, which were originally intended for the poor.

To enter the public schools a certificate of poverty was demanded, which virtually excluded children of the middle class, and it was claimed that the State should provide for the proper education of middle-class children as well as the poor, since the middle classes were the largest taxpayers in support of primary schools. To meet this reasonable demand two grades of public schools were added to the school system—French intermediate and the classical schools. Intermediate schools were therefore established in towns where, by paying a fee of from 6 to 10 cents per week, all classes of children could obtain an education at public expense. French schools of a superior grade were also founded, their course including English and French, other modern languages being taught for a higher tuition. Above the French schools were placed Latin and classical institutions. The system of primary instruction in Holland became, therefore, gradually enlarged, so as to include the higher, common, and classical institutions.

The educational system of Holland is very complicated, inasmuch as the various grades of educational establishments are provided for separately, each being partly supported by the General Government or provinces, communes, or individual citizens, as the case may be. Primary instruction includes home and school education. The tuition given to children, members of not more than three families, is called "home instruction." All other tuition, including schools for the poor, orphan asylums, reformatory schools, charitable institutions, and others for the public benefit, is by law designated as "school instruction."

Primary schools, which are maintained entirely or conjointly by the communes or the State (Government), are considered public schools, and all others are private. The law of August 17, 1878, provides that every



subsidy from a public fund, be it never so small, shall transfer a school to the domain of public schools. Consequently the private schools mentioned in article 3 of the law of 1857, which, on account of their nondenominational character, have obtained a subsidy from public funds, are no longer classed as private schools. They are grouped with the public schools and must submit to the rules governing them. In the official reports published in Holland these schools are called "subsidized private schools," in which charges for tuition may be imposed upon all children.

The question of State subsidies to sectarian private schools profoundly agitated the people of Holland for almost a whole generation; it was finally settled by the law of December 8, 1889, which provided that instead of paying each community 30 per cent of all expenses, each one should receive from the State a certain amount, determined by the number of pupils, and this rule is extended to private and parochial schools. The State is responsible for 25 per cent of the cost of founding or purchasing school buildings. But while State schools are under State supervision, parochial schools are not, for there the clergy is the ruling power. While formerly the tuition fees of the State schools were small, they are now graded in proportion to the State subsidy. The act of 1889 of course reduced the attendance at the public schools and increased the number of pupils at the private seminaries. A sufficient number of schools for all children without distinction of denominations are maintained in each commune. Neighboring parishes may conjointly support schools, and children from different communes may be admitted thereto. Opportunities are also given to children to continue their education in the so-called "repetition schools." It is also provided that children attending schools shall receive religious instruction from special teachers at hours appointed for that purpose.

The object of primary instruction in the schools is to impart useful knowledge and to develop the intellectual powers of the child, as well as to train him in all Christian and social virtues. School attendance is not compulsory, though this question is a constant theme for discussion in the legislature. For neglected children there are charity "particular" schools, but they may be admitted to training institutions and educated therein.

The provisions of the law for the inspection and management of schools and the due qualification of teachers are two of the most important features of the system. Prominent men, like Cuvier (1811), Cousin, the great French philosopher and pedagogue (1836), Mr. Nichols (1838), Dr. Bache (1838), Mr. Hickson (1840), in their reports on education in Holland have dwelt largely on these points, and their conclusions have had great influence in producing the present superior condition of the Dutch schools.

One unfavorable feature of the common schools in Holland is the overcrowding of the classes. From 40 to 50 children are considered



the maximum number in a class, but these limits, not being specified by law, are frequently overstepped. In many places, usually in cities, these conditions are so unfavorable that the Government schools are not able to meet their requirements when not assisted by private schools.

The Government report shows that 10.88 per cent of the children of school age (6 to 12) did not receive instruction during the year 1889. Out of 10,386 conscripts 91 per cent could read and write; 151, or 1.45 per cent, could only read, and 800, or 7.55 per cent, could neither read nor write; the highest percentage of illiteracy, 11.06, being in North Brabant.

M. Cuvier, in his report on coeducation in Holland, 1811, says, in regard to the subject of coeducation:

It being contrary to the customs of our country, we were rather shocked to find that both sexes were admitted to the same schools. The authorities, however, assured us that they never had cause to regret this arrangement. It is the custom not only in schools for the poor but in all burgher schools, in which parents pay quite high tuition fees and have ample means to send their children to private schools.

M. Cousin, in his report of 1836, says, on the same subject:

One thing that surprised me greatly about these schools is that both sexes are admitted not only to the same rooms, but are seated side by side on the benches.

In the *Revue Pédagogique Belge*, February 15, 1895, we read:

The greater number of schools in the Netherlands are coeducational. Coeducation of the sexes, which was prohibited in France a century ago by the immortal Condorcet, is in the Netherlands an established principle of pedagogy, and successfully applied. Girls and boys of primary schools are in general educated together from their sixth to their twelfth year, inclusive. In the lower classes the boys are instructed by women teachers. Compulsory instruction has not yet been settled by law; yet there are at present very few children not attending some primary school.

The following extracts from the *Revue Pédagogique Belge* for March 15, 1894, are given, as they present some interesting points of information:

The school law, passed in December, 1889, substituted for article 54 certain conditions under which free schools may receive support from the Government, which are as follows:

1. Instruction must comprise: (a) reading; (b) writing; (c) arithmetic; (d) elements of the Dutch language; (e) history of the country; (f) geography; (g) rudiments of natural sciences; (h) singing; (i) elements of drawing; (j) free gymnastic exercises and deportment.

2. In girls' schools: (k) the useful branches of manual training, provided that the pupils do not receive satisfactory instruction somewhere else in this branch.

3. Instruction for girls must comprise at least eighteen hours per week, of which two are devoted to manual labor.

A time-table must be sent to the inspector of the arrondissement, one copy of which must be posted at the school, in a place where it can be seen by all, including a table indicating holidays and vacations.

4. The number of teachers must be the same as that fixed for public schools by articles 23 and 24 of the law. (a) The school must be directed by a teacher 23 years of age or over who has the rank of a head teacher, though the direction may be intrusted

temporarily—but not exceeding six months—to a teacher below 23 years of age who is not of the rank mentioned. (b) The director must be aided by an assistant teacher when the number of pupils exceeds 40; by at least two teachers when the number reaches 90, and for each group of 55 pupils over 90, one additional teacher.

In order to entitle a free school to a State subsidy, it must have, beginning with January, 1894, in addition to the head teacher, the following corps of teachers:

| Pupils.         | 1894. | 1895. | 1897. | 1899. | Pupils.         | 1894. | 1895. | 1897. | 1899. |
|-----------------|-------|-------|-------|-------|-----------------|-------|-------|-------|-------|
| 41 to 90.....   | 1     | 1     | 1     | 1     | 310 to 364..... | 3     | 4     | 5     | 6     |
| 91 to 144.....  | 1     | 2     | 2     | 2     | 365 to 419..... | 4     | 5     | 6     | 7     |
| 145 to 199..... | 2     | 2     | 3     | 3     | 420 to 474..... | 5     | 6     | 7     | 8     |
| 200 to 254..... | 2     | 3     | 4     | 4     | 475 to 529..... | 6     | 7     | 8     | 9     |
| 255 to 309..... | 3     | 3     | 4     | 5     |                 |       |       |       |       |

All such teachers must hold a diploma furnished by the State board. Schools that can not receive State aid are as follows: (a) Where the pupils above 6 years of age do not exceed 25; (b) schools that receive an annual remuneration of 80 florins or more per pupil; (c) schools that during six months have not filled the vacancy of head teacher by a titular of that rank or where during four months the place of an assistant teacher has been vacant; (d) schools established for mercantile purposes.

A school board desiring a subsidy should address their request to the State deputies (permanent corps of deputies) of the province in which the school is established.

Before the 1st day of May the State deputies must decide whether the school is conducted according to the rules of the law, and if so, they determine the amount of State aid to be granted in conformity with article 45 of the law, and send their decision without delay to the minister, as well as to the inspector of primary instruction and the school board. Within the period of thirty days after the date of this finding an appeal may be made by the provincial commissioner, the inspector, or the school board. A royal decree regulates the amount of subsidy, and the law provides the means of operation.

The subsidy is calculated upon the same basis as that for public schools (see regulations of article 45):

For director:

|                                   |          |
|-----------------------------------|----------|
| School of 90 pupils or less.....  | \$100.50 |
| School of 91 to 199 pupils.....   | 120.60   |
| School of 200 to 309 pupils.....  | 160.00   |
| School of 310 to 419 pupils.....  | 201.00   |
| School of 420 pupils or more..... | 241.00   |

For each of the assistant teachers, in agreement with conditions mentioned above:

|                                   |         |
|-----------------------------------|---------|
| School of 41 to 90 pupils.....    | \$60.30 |
| School of 91 pupils and more..... | 80.40   |

If these assistant teachers have reached their twenty-third year and have the rank of a head teacher, \$120.60.

When the staff of teachers exceeds the minimum as determined by article 24 of the law, the subvention is increased for 1 teacher to \$60.30 where the school has 90 pupils or less and to \$80.40 in a school with 91 to 309 pupils; for 2 teachers or more to \$80.40 per teacher where the school has 310 pupils and over.

One should by no means overlook the fact that these figures represent the amount of State subvention only, and not the real remuneration of the members of the teaching force. The communal teachers have a remuneration fixed by the community according to prescriptions of the law. The nonofficial schools fix the remuneration of teachers as they please.

If the school teaches, in addition to the obligatory branches, at least two of the following subjects, (1) principles of the French language; (2) principles of the

German language; (3) principles of the English language, or (4) principles of mathematics, the subsidy is increased to \$80.40 for 1 teacher where there are 90 pupils or less; to \$100.60 per teacher, with an allowance for two more teachers, if there are 90 to 199 pupils; and to \$100.60 per teacher, with an allowance for three additional teachers, if the school numbers 200 pupils and over.

Instruction can not be given in buildings or on premises that have been condemned by the inspector of the medical service as unhealthy or too small for accommodating all the children. The inspector must give his reasons for disapprobation in writing and send copies of the same to the permanent corps of deputies, the communal administration, the school inspector, and the school director. The permanent corps of deputies directs the burgomasters and aldermen of the community where such premises are situated to publish the declaration.

An appeal against the inspector's decision can be made to the permanent corps of deputies by (a) the inspector of the school district; (b) the director of the school; (c) the proprietor or tenant of the premises; (d) the parents or teachers of the pupils.

The appeal must be made within thirty days. A final appeal may be addressed to the Crown against the decision of the corps of deputies. During the period of appeal and until the final decision the instruction may be continued on the premises, unless the inspector of the sanitary service has ordered it closed for reasons set forth in a written report; but instruction may be recommenced if the inspector of the sanitary service declares in writing that the premises have been sufficiently improved and the number of pupils properly limited.

The above shows that the law has laid down precise instructions concerning subsidies to free schools, so as to prevent the Government from sustaining institutions that may be undesirable for any reason. A school must be a good school in every respect to entitle it to State aid. Communal schools receive State subsidies rated according to the number of pupils and teachers and in agreement to the scale given above, besides 25 per cent of the expenditures of establishment, building, or grounds, in as far as these expenditures are not incumbent upon some other party. The rooms of these schools may be put, by the communal authority, at the disposal of those who wish to give religious instruction after class hours. Free schools receiving subsidies may introduce religious instruction or not; the State does not interfere in this matter. The Netherlands adopted the principle of religious neutrality in the public schools by the law of 1806, the constitution of 1846, and the laws of 1857 and 1878.

At a recent date the Government proposed to the Chambers to subsidize "middle schools for girls." This project created opposition on the part of the "feministes," to which the ministry has been constrained to defer, for it now seems certain that Minister van Houten will abandon the idea. The "feministes" make it their aim to suppress the special schools for girls. They demand that all middle schools shall be made coeducational, and that the Government shall only grant subsidies to institutions for both sexes. M. van Houten is personally in favor of this theory, as his former writings prove, but the Roman Catholics are hostile to the principle of coeducation of the sexes.

Young girls who desire to devote themselves to the higher education attend the courses of the "gymnasia." There are in Holland about



29 of these "gymnasia," of which 4 are nonsubsidized. These all belong to the communes, which decide whether a gymnasium shall be coeducational or reserved exclusively for young men; but in 1894 the Roman Catholic provinces of Maastricht and Breda refused to open their gymnasia to young girls. In the Protestant provinces it is different; in Rotterdam, for example, there are at present 13, and in Amsterdam 26 young women attending the courses of such coeducational institutions. In every instance the boys show the greatest deference for their girl fellow-students. Nothing detrimental to the cause of coeducation has been noticed in these schools.

There are four universities in the Netherlands which admit women to their courses. Between 1880-81 and 1893-94 the celebrated University of Utrecht admitted 118 women students. This year 55 young ladies were matriculated; at Groningen 13, Utrecht 16, Leiden 11, and at the communal university of Amsterdam 15. Of these young women, 11 study medicine, 19 philosophy and letters, 12 natural sciences, and 13 elective branches.

Holland has but 4 women doctors. The first, Mlle. Aletta Jacobs, who has a diploma from Groningen University, established herself in Amsterdam on September 15, 1879, after having completed a most brilliant course of studies, where she was authorized by Minister Thorbecke to practice medicine. Mlle. Jacobs has had the courage to defend and propagate in Holland the Malthusian doctrine, and though ridiculed and upbraided at the outset, she has finally succeeded in inculcating her ideas into the minds of many eminent persons of the country. The Malthusian Society of Holland, which is constantly increasing in adherents, numbers among its honorary members M. S. Van Houten, the prime minister, and has for its president M. B. H. Heldt, member of the States-General. There are also in its ranks other men, distinguished alike for their learning and prominence. Mlle. Jacobs has become the wife of one of the most eminent men in Amsterdam, M. G. V. Gerittson, who is famous as a financier, and is considered one of the foremost orators of the Second Chamber of the States-General.

Another woman physician, Mme. Du Saar, has made a great reputation as an oculist. Mme. Tusschenbroek was many years assistant to M. Mendes, of Lyons, who is the first gynecologist of Amsterdam and stands high in that branch of his profession. The fourth woman doctor is Mme. Johanna C. Spruyt.

A large number of young girls practice pharmacy, which profession seems appropriate to their sex. There are in the Netherlands 727 so-called "aides" (assistants), of whom 414 are men and 313 women. But, although the Hollandish universities have distributed 15 apothecary diplomas to young girls there is not one woman who conducts a private pharmacy, though it is said one will shortly be opened in Utrecht, conducted by Mme. Th. Olivier.

There are seven women possessing apothecary's diplomas who prac-



tice their profession, among whom are Mme. Alice Grutterink, who is chief pharmacist of the Coolsingel Hospital, in Rotterdam; and another is pharmacist at the Hospital Wilhelmina, of Amsterdam. Since 1880, a lady pharmacist, Mlle. Charlotte Jacobs, who is a sister of Dr. Gerittson, née Aletta Jacobs, has established herself in Batavia, where she owns a pharmacy and conducts it with the assistance of her husband.

There are also in Holland several women dentists and first-class nurses, who were trained in the special schools of Croix-Rouge, in La Haye, or Croix-Blanche, of Amsterdam.

Mr. Ipsen, in Vor Ungdom, says:

The energy with which the education of the higher grades is pursued in Holland in the various branches, and the consequent abnormal increase in the learned professions has led to serious results. Nervousness, which formerly was exceptional, has found a productive soil in the Netherlands, and facts show that knowledge in many instances has been bought too dearly. Even the phlegmatic character of the Hollanders can not withstand the pressure, and a reaction has already supervened, whose influence, it is hoped, will be felt when a normal equilibrium has been regained.

#### SUPERINTENDENCE OF PRIMARY SCHOOLS.

The State supervision of schools, under the supreme control of the minister of the interior, is in charge of inspectors, district school superintendents, and superintendents of arrondissements.

A provincial board is composed of 1 inspector and 1 school superintendent of each district in the respective provinces. The provincial boards of primary instruction meet three times a year, receive the reports of all the inspectors, consider the interests of primary education, and make an annual statement to the minister of the interior, who has the authority to convoke at the capital an assembly of delegates from provincial boards, in order to discuss topics of general educational interest.

The local supervision of schools rests upon the burgomaster and the aldermen.

*Inspectors.*—There are 3 inspectors, whose jurisdiction embraces from 3 to 4 provinces each; 25 district school superintendents, 1 for each district; and 1 school superintendent for each of the 94 arrondissements. For the sake of greater security, the councilors of a community may also appoint commissions to inspect all schools at least twice a year and ascertain if the law governing elementary instruction has been carried out.

Communities that may unite to establish and support schools can have a commission in common, composed of their burgomaster and aldermen, and, according to the amendments of the law of 1878, without regard to the number of inhabitants, though formerly the law demanded 3,000. For communities exceeding this number a special commission had to be appointed by the local councils.

Inspectors are nominated, suspended, or discharged by the King.

They receive in addition to their annual salary an allowance for traveling and incidental expenses while performing their official duties.

According to article 77 of the law, inspectors must visit the schools and communicate, either orally or in writing, with the district and arrondissement school superintendents and the local commissions and councils for the purpose of devising means for the improvement of public instruction. They must consult the minister of the interior on official business and submit to him annually a general report on the condition of schools, and such report must be based upon written reports of the local boards and upon personal and private notes.

Once a year the inspectors are to be convened by the minister of the interior to deliberate upon questions of public education under his direction.

District school superintendents are nominated by the King for life, and may be suspended, discharged, or pensioned, where the necessity arises, by his authority also. They are sworn in by the minister of the interior and are obliged to reside in a locality pointed out to him, and may hold another office.

They shall visit institutions for the training of teachers in their respective districts, attend meetings of the district school superintendents for the purpose of discussing school matters, and report annually before the 1st of May to the inspector of their district, and send a copy of such report to the States-General.

Arrondissement school superintendents are nominated by the King for a term of six years, but are eligible for renomination. They are sworn in before the royal commissioner of the province, and can at any time be discharged by the King. These superintendents must reside within the borders of their jurisdiction, unless they receive a special permit from the minister to live elsewhere.

They shall keep a record of all public and public-private [semipublic] schools in their arrondissements and of such teachers employed as are classed under article 8 of the law. They shall have knowledge of the school books used in each school, pay stated visits to all normal schools and normal institutions, report to the district school superintendent on all school affairs, and attend the meetings of the school commissioners.

The King, as the highest authority, is the final arbitrator on all questions arising in school matters concerning the teachers. He extends privileges to teachers and grants subsidies to the communes for school purposes and fixes the boundaries of school districts, etc. The minister of the interior acts as adviser and counselor to the King in all these affairs.

The parish council of Hilversum, in establishing new regulations for the appointment of school committees, have recently decreed that two women shall be included in each committee. The minister in response to an inquiry concerning the legality of this action replied "that the law does not prevent women from occupying a place on school committees." The decision was received with applause by the friends of education.

Under the law of the Netherlands the term "lager onderwijs" (primary instruction) does not apply to—

(a) Instructors of special branches, as singing, needlework for girls, drawing, principles of agriculture, gymnastics, or fancywork.

(b) Schools in which such branches are exclusively taught.

(c) Schools in which children over 6 years of age are not admitted and where only preparatory lessons are given. Thus nursery or infant schools do not come under the provision of the law, because only preparatory instruction is imparted to children under 6 years of age. These schools, however, are supported both by public and private funds.

(d) Military instructors.

(e) Schools for the deaf and dumb, blind, idiots, or for those defective in speech.

*Number and kinds of primary schools in the 11 provinces.*

| Year.                         | Public. | Subsidized private schools. <i>a</i> | Nonsubsidized denominational schools. | Total. |
|-------------------------------|---------|--------------------------------------|---------------------------------------|--------|
| 1893-94.....                  | 3,022   | 34                                   | <i>b</i> 1,317                        | 4,373  |
| 1889-90.....                  | 2,952   | 57                                   | 1,206                                 | 4,215  |
| 1888-89.....                  | 2,946   | 61                                   | 1,183                                 | 4,190  |
| Difference in five years..... | + 76    | — 27                                 | + 134                                 | + 183  |

*a* "Bijzondere scholen" have been placed with private schools as being the nearest term with which to designate these schools.

*b* The nonsubsidized private schools, 1,317, include: (1) Charity and orphan schools: 56 Protestant, 16 Roman Catholic, and 3 Jewish schools. (2) Corporate schools: 233 schools for Christian national education (Reformed Church), 234 Protestant schools of other denominations. (3) Private or select schools: 175 Protestant, 45 Roman Catholic, 7 Jewish, and 26 schools of other denominations not specified.

There were 18 communes in North Brabant, Gelderland, Limburg, and Utrecht which in 1889 had no public schools, and 12 of these communes belonged to the latter province.

*Nursery or infant schools.*

| Year.                         | Public infant schools. | Private infant schools. |
|-------------------------------|------------------------|-------------------------|
| 1893-94.....                  | 135                    | 870                     |
| 1889-90.....                  | 129                    | 840                     |
| 1888-89.....                  | 131                    | 841                     |
| Difference in five years..... | + 4                    | + 29                    |

"REPETITION" SCHOOLS.<sup>1</sup>

At the close of 1889 519 communes had 1 each of these schools, and 138 other communes had evening schools, distributed as follows:

| Province.           | Number of communes with— |                     | Province.        | Number of communes with— |                     |
|---------------------|--------------------------|---------------------|------------------|--------------------------|---------------------|
|                     | Evening schools.         | Repetition schools. |                  | Evening schools.         | Repetition schools. |
| North Brabant ..... | 41                       | 70                  | Overijssel ..... | 4                        | 24                  |
| Gelderland .....    | 12                       | 65                  | Groningen .....  | 3                        | 50                  |
| South Holland ..... | 13                       | 90                  | Drenthe .....    | 1                        | 24                  |
| North Holland ..... | 11                       | 75                  | Limburg .....    | 8                        | 2                   |
| Zealand .....       | 26                       | 64                  |                  |                          |                     |
| Utrecht .....       | 12                       | 27                  | Total .....      | 138                      | 519                 |
| Friesland .....     | 7                        | 28                  |                  |                          |                     |

The following table presents a record of the population of Holland (census of January 1, 1894, and January 1, 1890), the number of children of school age, and of those not receiving primary instruction during the year, compared with the record of January 1, 1889:

|  | January 1— |           |           | Difference in five years. |
|--|------------|-----------|-----------|---------------------------|
|  | 1894.      | 1890.     | 1889.     |                           |
| Population:                                |            |           |           |                           |
| Men .....                                  | 2,341,484  | 2,228,487 | 2,232,183 | +109,301                  |
| Women .....                                | 2,391,427  | 2,282,928 | 2,273,749 | +117,678                  |
| Total .....                                | 4,731,911  | 4,511,415 | 4,505,932 | +225,979                  |
| Children over 6 and under 12 years of age: |            |           |           |                           |
| Boys .....                                 | 315,509    | 301,571   | 301,997   | + 13,512                  |
| Girls .....                                | 311,602    | 298,545   | 299,059   | + 12,543                  |
| Total .....                                | 627,111    | 600,116   | 601,056   | + 26,055                  |
| Not receiving primary instruction—         |            |           |           |                           |
| Boys .....                                 | 26,983     | 29,101    | 31,935    | — 4,952                   |
| Girls .....                                | 33,675     | 36,188    | 39,386    | — 5,711                   |
| Total .....                                | 60,658     | 65,289    | 71,321    | — 10,663                  |

The foregoing table shows that the number of children over 6 and under 12 in 1889 was increased by 26,055 in 1894, or 4.31 per cent; the number of those who did not receive primary instruction was decreased by 10,663 or 14.97 per cent.

Out of the total population on January 1, 1889, of 4,505,932 inhabitants, there were 601,056 children, 301,997 boys and 299,059 girls of school age. Of these, 31,935 boys and 39,386 girls, making a total of 71,321, or 11.87 per cent, did not receive instruction in public or private schools. In 1893-94 this number was 60,658, or 9.67 per cent of all the children of school age, 627,111. Consequently 967 children (including the blind, deaf, and dumb, children of strangers, and those whose parents could not provide proper clothing) in each 10,000 from 6 to 12 years of age were not enrolled in public or private schools.

<sup>1</sup> According to the latest statistics, 1893-94, there are now 111 evening and 543 repetition schools in operation in Holland.



*Pupils belonging to day schools.*

|                                | January 1— |          |          | Difference<br>in five<br>years. |
|--------------------------------|------------|----------|----------|---------------------------------|
|                                | 1893-94.   | 1889-90. | 1888-89. |                                 |
| Public schools:                |            |          |          |                                 |
| Boys.....                      | 262, 222   | 251, 114 | 248, 476 | +13, 746                        |
| Girls.....                     | 211, 729   | 203, 812 | 202, 607 | + 9, 122                        |
| Subsidized private schools:    |            |          |          |                                 |
| Boys.....                      | 443        | 1, 116   | 1, 127   | — 684                           |
| Girls.....                     | 952        | 2, 133   | 2, 209   | — 1, 257                        |
| Nonsubsidized private schools: |            |          |          |                                 |
| Boys.....                      | 92, 741    | 82, 215  | 80, 851  | +11, 890                        |
| Girls.....                     | 115, 442   | 102, 588 | 100, 389 | +15, 653                        |
| Total:                         |            |          |          |                                 |
| Boys.....                      | 355, 406   | 334, 445 | 330, 454 | +24, 952                        |
| Girls.....                     | 328, 123   | 308, 533 | 305, 205 | +22, 918                        |

Day pupils also attending evening schools were distributed as follows:

|                                | January 1— |          |          | Difference<br>in five<br>years. |
|--------------------------------|------------|----------|----------|---------------------------------|
|                                | 1893-94.   | 1889-90. | 1888-89. |                                 |
| Public schools:                |            |          |          |                                 |
| Boys.....                      | 9, 540     | 10, 133  | 10, 170  | — 630                           |
| Girls.....                     | 8, 310     | 7, 637   | 8, 151   | + 159                           |
| Subsidized private schools:    |            |          |          |                                 |
| Boys.....                      | 27         | 135      | 122      | — 95                            |
| Girls.....                     | 5          | 9        | 15       | — 10                            |
| Nonsubsidized private schools: |            |          |          |                                 |
| Boys.....                      | 3, 910     | 4, 771   | 5, 228   | —1, 318                         |
| Girls.....                     | 1, 949     | 2, 692   | 2, 630   | — 681                           |
| Total:                         |            |          |          |                                 |
| Boys.....                      | 13, 477    | 15, 039  | 15, 520  | —2, 043                         |
| Girls.....                     | 10, 264    | 10, 338  | 10, 796  | — 532                           |

In 1893-94 there has been a general decrease from 1888-89 in all departments except in the girls' department in public schools.

The number of day pupils instructed gratuitously is shown in the following table:

|                                    | January 1— |          |          |          |          |          | Difference in<br>five years. |          |
|------------------------------------|------------|----------|----------|----------|----------|----------|------------------------------|----------|
|                                    | 1893-94.   |          | 1889-90. |          | 1888-89. |          |                              |          |
|                                    | Boys.      | Girls.   | Boys.    | Girls.   | Boys.    | Girls.   | Boys.                        | Girls.   |
| Public schools .....               | 127, 729   | 104, 949 | 136, 575 | 112, 920 | 135, 444 | 113, 012 | —7, 715                      | — 8, 063 |
| Subsidized private schools .....   | 2          | 109      | 115      | 623      | 123      | 628      | — 126                        | — 519    |
| Nonsubsidized private schools..... | 23, 547    | 33, 028  | 21, 076  | 31, 599  | 21, 473  | 30, 467  | +2, 074                      | + 2, 561 |
| Total .....                        | 151, 278   | 138, 086 | 157, 766 | 145, 142 | 157, 045 | 144, 107 | —5, 767                      | — 6, 021 |

The above table shows that the number of children instructed gratuitously in 1893 decreased by 11,788 from the number instructed five years previously, while in 1888 there was an increase of 4,366 over 1887-88.

*Pupils attending evening schools exclusively.*

|                                    | January 1— |        |          |        |          |        | Difference in<br>five years. |        |
|------------------------------------|------------|--------|----------|--------|----------|--------|------------------------------|--------|
|                                    | 1893-94.   |        | 1889-90. |        | 1888-89. |        |                              |        |
|                                    | Boys.      | Girls. | Boys.    | Girls. | Boys.    | Girls. | Boys.                        | Girls. |
| Public schools.....                | 1, 605     | 383    | 1, 889   | 467    | 2, 131   | 671    | —526                         | —288   |
| Subsidized private schools.....    | 15         | .....  | 24       | .....  | 22       | .....  | — 7                          | .....  |
| Nonsubsidized private schools..... | 1, 354     | 757    | 1, 402   | 462    | 1, 372   | 563    | — 18                         | +194   |
| Total .....                        | 2, 974     | 1, 140 | 3, 315   | 929    | 3, 525   | 1, 234 | —551                         | — 94   |

The above figures indicate a slight decrease in the attendance at the evening schools, except in the nonsubsidized private schools for girls.

*Pupils attending "repetition" (continuation) schools.*

|                                | January 1— |          |          | Difference<br>in five<br>years. |
|--------------------------------|------------|----------|----------|---------------------------------|
|                                | 1893-94.   | 1889-90. | 1888-89. |                                 |
| Public schools:                |            |          |          |                                 |
| Boys.....                      | 13,399     | 13,199   | 12,633   | + 766                           |
| Girls.....                     | 3,492      | 2,850    | 2,552    | + 940                           |
| Subsidized private schools:    |            |          |          |                                 |
| Boys.....                      | 256        | 312      | 300      | — 44                            |
| Girls.....                     | 78         | 95       | 84       | — 6                             |
| Nonsubsidized private schools: |            |          |          |                                 |
| Boys.....                      | 1,610      | 1,163    | 1,122    | + 488                           |
| Girls.....                     | 631        | 1,021    | 886      | — 255                           |
| Total:                         |            |          |          |                                 |
| Boys.....                      | 15,265     | 14,674   | 14,055   | +1,210                          |
| Girls.....                     | 4,201      | 3,966    | 3,522    | + 679                           |

The number of those attending repetition schools in 1893 increased principally in the public schools and in the nonsubsidized private institutions for boys, while a small decrease is noticed in the subsidized private schools and a somewhat larger decrease in the nonsubsidized private schools for girls.

By adding the number of children of school age (6 to 12) for 1893, given in the table on page 489, to the number of children attending repetition schools (over 12 years of age) we obtain a total of 646,577 children, and for 1889 a total of 618,633 children.

The teachers employed in the foregoing schools numbered 16,953 in 1893, and 15,192 in 1889. The average of pupils to each teacher was 43 and 45, respectively. The number of pupils in attendance on May 1 is taken as the average for the scholastic year.

The employment at labor of children under 12 years of age was prohibited in 1889. School attendance is encouraged by means of prizes, school entertainments, and rewards, and distribution of savings-bank books, principally in 269 communes. A sum of about \$15,968 was spent in this manner in 1893.

The attendance at repetition schools is not compulsory, and instruction is given gratuitously. The expenses are borne by the communes.

*Infant schools.*

|                                 | January 1— |          |          | Difference<br>in five<br>years. |
|---------------------------------|------------|----------|----------|---------------------------------|
|                                 | 1893-94.   | 1889-90. | 1888-89. |                                 |
| Public:                         |            |          |          |                                 |
| Boys under 6 years of age.....  | 11,005     | 10,256   | 9,857    | + 1,148                         |
| Boys over 6 years of age.....   | 1,476      | 1,542    | 1,799    | — 323                           |
| Girls under 6 years of age..... | 10,415     | 9,900    | 9,455    | + 960                           |
| Girls over 6 years of age.....  | 1,377      | 1,500    | 1,675    | — 298                           |
| Total enrollment.....           | 24,273     | 23,198   | 22,786   | .....                           |
| Private:                        |            |          |          |                                 |
| Boys under 6 years of age.....  | 34,709     | 34,162   | 32,944   | + 1,765                         |
| Boys over 6 years of age.....   | 4,855      | 4,417    | 3,699    | + 1,156                         |
| Girls under 6 years of age..... | 36,911     | 36,080   | 36,062   | + 849                           |
| Girls over 6 years of age.....  | 6,041      | 5,694    | 5,088    | + 953                           |
| Total enrollment.....           | 82,516     | 80,353   | 77,793   | .....                           |
| General total.....              | 106,789    | 103,551  | 100,579  | + 6,210                         |

The public infant schools are intended for poor children from 3 to 6 years of age. Leyden has, for instance, three schools of this kind; in each of them there are from 300 to 400 children. Infant schools have been in operation ever since 1806, when a regulation of the law governing public instruction enjoined upon the inspectors "to make endeavors for the establishment of a sufficient number of infant schools." These institutions prospered, especially under the patronage of the Society of Public Good, which from the year 1823 founded a considerable number. The infant schools patronized by this society were neutral in regard to religion. The various denominational communes created on their part the "salles d'asiles," having a sectarian basis. Other communes opened public infant schools. The law of 1878 on primary instruction did not include these institutions in the number of schools. They are, however, subject to the regulations of article 5 (relating to hygienic conditions and cleanliness of schoolhouses) and to article 72 (relating to the superintendence exercised by the municipalities and inspectors).

Teachers of infant schools are not required to hold a certificate of capacity, and the State has not done anything in behalf of their professional training. The Froebel method has been introduced into many of these schools.

Instruction was also extended to those detained in the various penal institutions, which include 3 reformatory schools, 31 penitentiaries, and 45 houses of detention. Children under 16 years of age are placed if necessary in one of the three State reformatories.

*Persons detained who received instruction or were excused on account of sickness or old age.*

|                                | Not admitted.                |                               | Admitted to instruction. | Total detained. |
|--------------------------------|------------------------------|-------------------------------|--------------------------|-----------------|
|                                | On account of sickness, etc. | Were sufficiently instructed. |                          |                 |
| In reformatory establishments: |                              |                               |                          |                 |
| 1893-94.....                   |                              |                               | 632                      | 632             |
| 1889-90.....                   |                              |                               | 658                      | 658             |
| In special penitentiaries:     |                              |                               |                          |                 |
| 1893-94.....                   | 135                          | 44                            | 142                      | 321             |
| 1889-90.....                   | 264                          | 60                            | 463                      | 787             |
| In ordinary penitentiaries:    |                              |                               |                          |                 |
| 1893-94.....                   | 9,202                        | 1,085                         | 3,192                    | 13,479          |
| 1889-90.....                   | 9,128                        | 561                           | 3,160                    | 12,849          |
| In houses of detention:        |                              |                               |                          |                 |
| 1893-94.....                   | 5,543                        | 409                           | 395                      | 6,347           |
| 1889-90.....                   | 6,375                        | 142                           | 353                      | 6,870           |
| Total:                         |                              |                               |                          |                 |
| 1893-94.....                   | 14,880                       | 1,538                         | 4,361                    | 20,779          |
| 1889-90.....                   | 15,767                       | 763                           | 4,634                    | 21,164          |
| 1888-89.....                   | 14,891                       | 1,126                         | 3,996                    | 20,013          |
| Difference in five years.....  | -11                          | +412                          | +365                     | +766            |

The statistics show that in 1893-94 of 20,779 detained 1,538, or 7.4 per cent, were well instructed; 14,880, or 71.6 per cent, were not admitted; 4,361, or 20.98 per cent, attended the lessons.

Of the 4,361 admitted to instruction, 69.8 per cent acquired a

knowledge of the primary branches before their dismissal from penal punishment, 25.2 per cent were found deficient, and 5 per cent were unable to read or write.

From the foregoing tables it appears that kindergarten and primary instruction was imparted to the following number of children and persons:

In infant schools:

|               |          |
|---------------|----------|
| 1893-94 ..... | 106, 789 |
| 1889-90 ..... | 103, 551 |
| 1888-89 ..... | 100, 579 |

In primary schools (age 6-12):

|               |          |
|---------------|----------|
| 1893-94 ..... | 566, 453 |
| 1889-90 ..... | 534, 827 |
| 1888-89 ..... | 529, 735 |

In all penal institutions:

|               |        |
|---------------|--------|
| 1893-94 ..... | 4, 361 |
| 1889-90 ..... | 4, 634 |
| 1888-89 ..... | 3, 996 |

The school regulations require that—

Primary schools shall be open without intermission the whole year, except holidays. During class hours the master shall be present from the opening of school to closing; he must not engage in anything not connected with teaching, nor absent himself except in cases of absolute necessity. The master must not permit pupils to leave the school unnecessarily, but require attention and good behavior both in the class room and on the playgrounds. Pupils must be enrolled, as far as possible, for fixed terms. Instruction in the different branches shall, as far as possible, be conveyed to the pupils by means of the blackboard. An examination shall be held once a year at each school. Qualified pupils shall then be promoted from the lower to the higher grades, and, if circumstances permit, rewards shall be given for diligence and merit. A deserving pupil, when leaving school after completion of the course of study, shall be presented with a certificate of honor.

A code of regulations shall be drawn up for each school, and this, whether written or printed, shall be displayed on a board, hung up in the class room, and from time to time be read and explained by the master.

*Teachers.*—Under the provisions of the law of 1857 there were two classes of assistant teachers, but under subsequent regulations there are only head masters and teachers. Pupil teachers are not included in the law.

Only persons of good morals who possess the qualifications required by law are admitted as teachers. Foreign teachers must obtain a special permit from the King. These rules do not apply to those who teach children of private families exclusively nor to persons who voluntarily offer their services and receive no remuneration therefor.

Teachers are not allowed under the law to pursue any profession outside of their school duties, nor are they permitted to hold any office or allow members of their family to engage in any professional pursuit at their residences. The King, however, can suspend this regulation in special cases.

Besides the two classes of teachers mentioned, there are pupil teachers



or aspirants, i. e., young pupils who are otherwise qualified, but have not reached the requisite age, or those students in normal schools who are teaching in a primary school connected therewith. Persons teaching modern languages, drawing, gymnastics, etc., are considered "special teachers."

Women are largely employed as teachers, not only in coeducational schools but also in the classes of younger boys. It rarely happens, however, that women teachers are advanced to the highest classes. The positions in the higher grade girls' schools are remunerative and much sought after, and daughters of rich and distinguished families, who are by no means obliged to earn a living or make teaching their profession, often fill such places.

*Appointments.*—Head masters or mistresses of communal schools are appointed by the councils of the communes, who select their names from a list of candidates (not less than 6) who have passed the prescribed competitive examination. The head master and regular teachers are appointed by communal councils from lists of at least 3 candidates who have been proposed by the aldermen in concurrence with the local school superintendent. Competitive examinations are not required for these appointments.

The councils are empowered to discharge teachers from schools either by allowing them to resign, or by request of a district school inspector, or burgomaster and aldermen. In such cases the phrase "not honorably" may be added to the paper of dismissal.

In order to obtain a position as teacher it is requisite that candidates shall present to the authorities in charge of appointments certificates of qualification and moral conduct furnished by the burgomaster of the commune in which the applicant lived during the last two years, or by the commissioner of the province.

The only approach to the monitorial system in the schools of Holland is where young people of either sex, who have written authority from the school superintendent of the arrondissements, are admitted to schools as pupil teachers, under the following conditions: (a) They must be over 15 years of age and under 20; (b) they must work under the direct supervision of a competent teacher; and, (c) having performed these duties for a period of three months, a pupil teacher must produce a certificate, signed by the head master of the school to which he or she belonged, stating that conduct and progress are satisfactory.

The following corps of teachers was engaged in 1893 in 4,373 primary schools, and in 1889 in 4,215 schools:

|                       | 1893-94. | 1889-90. |
|-----------------------|----------|----------|
| Head masters .....    | 3,836    | 3,679    |
| Head mistresses ..... | 515      | 498      |
| Male teachers .....   | 8,409    | 7,571    |
| Female teachers ..... | 4,193    | 3,444    |
| Total .....           | 16,953   | 15,192   |
| Pupil teachers .....  | 2,807    | 2,332    |

These teachers were employed in the different classes of primary schools as follows:

|                                | 1893-94. |         |                 | 1889-90. |         |        |
|--------------------------------|----------|---------|-----------------|----------|---------|--------|
|                                | Male.    | Female. | Total.          | Male.    | Female. | Total. |
| Public schools proper:         |          |         |                 |          |         |        |
| Head teachers .....            | 2,923    | 76      | 3,004           | 2,855    | 75      | 2,930  |
| Teachers .....                 | 6,355    | 2,663   | 9,018           | 5,799    | 2,202   | 8,001  |
| Private subsidized schools:    |          |         |                 |          |         |        |
| Head teachers .....            | 17       | 18      | 35              | 32       | 24      | 56     |
| Teachers .....                 | 39       | 41      | 80              | 51       | 57      | 108    |
| Private nonsubsidized schools: |          |         |                 |          |         |        |
| Head teachers .....            | 891      | 421     | 1,312           | 792      | 399     | 1,191  |
| Teachers .....                 | 2,015    | 1,489   | 3,504           | 1,721    | 1,185   | 2,906  |
| Total .....                    | 12,245   | 4,708   | <i>a</i> 16,953 | 11,250   | 3,942   | 15,192 |
| Public infant schools:         |          |         |                 |          |         |        |
| Teachers .....                 | 2        | 261     | 263             | 3        | 198     | 201    |
| Assistants .....               |          |         | 590             |          |         | 574    |
| Total .....                    |          |         | <i>b</i> 853    |          |         | 775    |
| Private infant schools:        |          |         |                 |          |         |        |
| Teachers .....                 | 13       | 1,092   | 1,105           | 20       | 1,069   | 1,089  |
| Assistants .....               |          |         | 1,325           |          |         | 1,380  |
| Total .....                    |          |         | <i>c</i> 2,430  |          |         | 2,469  |
| Prison-school teachers .....   |          |         | <i>d</i> 52     |          |         | 55     |

*a* Increase in four years, 1,761.  
*b* Increase in four years, 78.

*c* Decrease in four years, 39.  
*d* Decrease in four years, 3.

Examinations of primary teachers, both public and private, are ordered by the State on subjects from *a* to *i*, or *a* to *k*, in article 2 of the law. Certificates of efficiency are: (*a*) Those entitling to give home or school instruction in subjects of article 2, under *a* to *i* or *k*; (*b*) those conferring the rank of head master, and entitling the person certified to give home or school instruction in subjects of article 2, under *a* to *i* or *k*, and subjects mentioned under *o*, *p*, *q*; (*c*) those entitling the teacher to give home and school instruction in enumerated subjects.

Candidates who are 18 years of age may be admitted to these examinations, and must notify the local school superintendent in due time and submit certificates of age and moral character. Such candidates may be examined either in the province in which they reside or in which they desire to be appointed. The first examination in the year is held on April 1; the second in October.

Of these candidates, 390 male and 455 female passed their final examinations at the end of the year 1893-94, and received certificates, besides 166 persons, 78 male and 88 female, in subject *j*, and 80 female in subject *k*. For 1889 there was a total of 1,137 candidates receiving teachers' certificates.

*Salaries of teachers.*—Each teacher receives a fixed annual salary, which in no instance shall be less than \$281 for the head master of a school, and not less than \$241 for those holding a diploma as head master, and not less than \$161 for regular teachers. The head master of a school is entitled to free residence and a garden, if possible, or an allowance for house rent.

In 1893 the salaries of head masters ranged from \$281 to \$1,085. Of these, 2,171 received from \$281 to \$441, and 830 ranged from \$442 to \$1,045. The highest salaries were paid to three head teachers, who received from \$1,046 to \$1,085. The salaries of regular teachers ranged from \$161 to \$643.

Three thousand one hundred and one teachers were paid salaries from \$161 to \$241; 79 teachers were paid from \$603 to \$640, and the remainder, numbering 5,838, each received from \$242 to \$602.

The funds for salaries in 1893-94 were derived from the following sources:

|   | 1893-94.  | 1889-90.  |
|---|-----------|-----------|
| A. From the Government:                                   |           |           |
| For primary-school teachers .....                         | \$4,516   | \$4,582   |
| For teachers of normal schools and practice schools ..... | 71,678    | 78,887    |
| For teachers of normal courses .....                      | 141,004   | 165,870   |
| Total .....   | 217,198   | 249,339   |
| B. From the communes:                                     |           |           |
| For head masters .....                                    | 1,205,468 | 1,156,982 |
| For teachers .....  | 2,600,001 | 2,228,777 |
| For special remunerations .....                           | 11,632    | 5,461     |
| Total .....   | 3,817,101 | 3,391,220 |
| C. From school fees .....                                 | 770       | 840       |
| General total .....                                       | 4,035,069 | 3,641,399 |
| General total in 1888-89 .....                            | 3,604,449 |           |
| Increase in five years .....                              | 430,620   |           |

*Pensions of teachers.*—Under the provision of article 38 of the law all teachers who have reached the age of 65 years, and those who are mentally or physically disabled, after ten years' service, are entitled to pensions. Head masters who are suspended by reason of schools having been discontinued receive half pay for a term of five years if within this period they do not obtain other employment the remuneration for which is equal to their previous salary as a teacher. These pensions are paid quarterly, and they amount to one-sixtieth of the annual salary for each year of service, but must never exceed two-thirds of the former salary.

In 1893 pensions were granted to 27 teachers, male and female, and to 41 head masters; in 1889 to 13 teachers and to 45 head masters. These pensions ranged from \$80 to \$523 for each head master, and from \$40 to \$321 for regular teachers. The total sum expended for pensions of public primary-school teachers amounted in 1893 to \$138,280 and in 1889 to \$114,507.

In conformity with article 41 of the law of August 17, 1878, all teachers contributed 2 per cent of their annual salaries to the pension fund, which amounted in 1893 to \$75,943 and in 1889 to \$68,103. The pension system relieves those teachers who have served faithfully as such from actual care and anxiety as to provision for old age.

The moral training of the young is regulated by articles 22 and 33 of the law:

School education shall conduce to the intellectual development of the young, who shall be trained in the Christian and social virtues by means of instruction in all appropriate and useful branches of knowledge.

The lessons of religion are intrusted entirely to the minister and special teachers of theology. Regular teachers must refrain from teaching, doing, or permitting anything at variance with the respect due to the religious convictions of other sects. A teacher guilty of offense in this respect may be suspended for a term not exceeding one year, but in case of repetition of the offense he may be suspended for an indefinite period from the duties of a public-school teacher. The introduction of religious instruction into common schools is no departure from the principles of the law. This feature has been adopted from practical considerations on account of the difficulties experienced by parents who can not obtain religious instruction for their children in other suitable places, but precautions are taken so that religious teaching shall not interfere with other lessons. The school simply is an agent between parents who desire their children to be initiated into religion and their respective religious teachers.

*Savings banks.*—Endeavor has been made by the school authorities to develop thrift in children by introducing the savings-bank system after the English model. In each class room there is kept a receptacle in shape of a flat wooden box, with numbered compartments arranged so as to receive temporarily the small earnings of the children. Once a week the contents are counted and deposited in a bank.

*School fees.*—The local authorities were allowed, under the provisions of the law of 1857, to make primary instruction gratuitous in the communes under their jurisdiction. One hundred and forty-six thousand and sixty-two, or 36 per cent of 406,329 children enrolled in public elementary schools, in 1857 received gratuitous instruction; and in 1876 50 per cent, or, including all children under some public instruction, 58 per cent.

The estimate of December 31, 1889, showed that in 166 communes no fees were charged for children attending public primary schools.

Such communes numbered in—

|           |     |           |     |
|-----------|-----|-----------|-----|
| 1888..... | 164 | 1884..... | 182 |
| 1887..... | 164 | 1883..... | 196 |
| 1886..... | 179 | 1882..... | 217 |
| 1885..... | 175 |           |     |

In a report of the United States consul at Amsterdam in 1839 we find the following information:

The public primary schools of this city are divided into four classes.

The first class, of which there are 51 at this time, are free schools.

In the second-class schools, of which there are also a goodly number, the school money charged is for 1 child 15 cents, Dutch currency, or 6 cents American money, per week; for 2 children of the same family, 12½ cents each, and for 3 children only



10 cents each per week; in the third class the charge for 1 child is 20 florins, or about \$8 per annum, and for 2 or more children of the same family 16 florins, or about \$6.40, each; in the fourth class the charge for each child is 70 florins (\$28) per annum, and for 2 children or more of same family 60 florins, or \$24, each.

*School buildings.*—The repairs and erection of school premises are regulated by articles 4, 5, and 50 of the law of August 17, 1878, and the building and furnishing of the same by the royal decrees of May 4, 1883, and August 30, 1884.

Schoolhouses in Holland are of diverse styles and have been constructed as necessity demanded; but on the whole the Dutch have not displayed much taste in the architecture of public school buildings, says Mr. Ipsen in *Vor Ungdom*. The usual plan of country schoolhouses in the Province of Utrecht in 1844 consisted of rooms about 52 by 26 feet, bisected by glass partitions, and were intended for about 150 children.

Some of these buildings much resemble the very old English schoolhouses; at The Hague, e. g., are seen square buildings without partitions, where the chief difference consists in the position of the seats for classes, and not in the room itself, the pupils being placed back to back instead of face to face.

Another plan of a school building at Amsterdam for 500 children shows only one row of desks, and the great length of the room in proportion to its width is a serious defect. Both these styles, as far as new buildings are concerned, may be considered out of date. All new schoolhouses are excellent, and provided with modern improvements. A burgher school in Leyden, erected in 1890-91, will serve as an example. It has excellent ventilation, and the class rooms have high ceilings and good light. In order to procure the best light possible windows have been cut in the partition walls of the class rooms at such a height as to prevent the pupils from seeing each other. The halls of this school are unusually broad and paved with small grooved tiles.

Mr. Ipsen, in *Vor Ungdom*, says:

In Dutch schools a Danish eye soon detects the absence of taste for embellishment and comfort which would be very inexpensive in many cases. Even in handsome new buildings there is a certain bare look, though everything is scrupulously neat and clean.

Article 6 of the law of August 17, 1878, prescribes that the area of each schoolroom be at least 0.8 square meter for each pupil, with a space of at least 3.6 cubic meters per pupil; the height of the room being 4.5. The doors of the schoolroom must not be in direct contact with the air outside. The halls and vestibules are lighted sufficiently and must be at least 2 meters wide and not lower than 2½ meters high. The outside walls of a school building shall have at least 0.23 meter thickness.

On the establishing of a new school, the communal council must

observe the following regulations of article 13 of the royal decree of May 4, 1883, in regard to school furniture:

Each school bench shall accommodate two children, and have a support for the lower part of the back. The tables shall be constructed with receptacles in which the girls may keep their needlework.

The modern equipments of schools in Holland are very handsome, without any display of extravagance. The benches and tables are made to accommodate 4 children, 2 in front and 2 in the rear, the tables being provided with a space under the lid for school necessities. There are appropriate benches in every room for scholars of different sizes, and children when entering a new class are first measured and then seated at the suitable tables. In infant and primary schools each class has its counting frame, and every slate is fitted with one of these useful devices. Great pains are taken to convey a correct idea of numbers and the principles of arithmetic by means of practical and intelligent methods. Blackboards are in general use.

*School hygiene.*—Hygienic conditions of school buildings are regulated by articles 4, 5, and 50 of the law, and the royal decree of August 29, 1884. Buildings condemned by the supervising health inspectors must remain closed for school purposes until the necessary improvements have been made. Persons transgressing against the law will be fined from \$10 to \$20, and for repeated offenses from \$20 to \$40 and imprisoned for a period of not less than eight days or more than one year. Schoolrooms must always be kept clean and in good order; and to that end they must always be aired during the recesses. Teachers are required to see that pupils are at all times cleanly, and at the same time exercise the greatest care in regard to their health. To this end baths have been introduced into some of the schools.

*School libraries.*—The arrondissement libraries increased from 94 in 1889 to 101 in 1893. The volumes were increased, during the same period, from 30,558 to 36,132. The names of 5,461 readers were registered for 1893. One thousand two hundred and eighty-eight teachers' meetings were held during the year, in the above-mentioned arrondissements, at which an average number of 3,525 public and 285 private teachers were present.

*Expenditures by the General Government for primary instruction.*

|  | 1893-94. | 1889-90. |
|--|----------|----------|
| For inspection.....  | \$59,241 | \$51,537 |
| Training of teachers:  |          |          |
| State normal schools.....  | 139,866  | 156,084  |
| Subsidies to normal schools.....   | 38,258   | 19,722   |
| State normal courses.....  | 160,308  | 185,660  |
| Contributions toward normal courses and to head teachers of schools<br>for the training of male and female teachers..... | 16,622   | .....    |
| Total.....   | 355,054  | 361,466  |

*Expenditures by the General Government for primary instruction—Continued.*

|   | 1893-94.    | 1889-90.    |
|---|-------------|-------------|
| Arrondissement libraries and extra allowance to teachers.....   | \$3, 146    | \$2, 729    |
| State primary schools.....  | 5, 747      | 8, 290      |
| Subventions to communes for pensions.....   | 29, 266     | 29, 266     |
| Indemnifications by the Government (see art. 45 of the law) and additional sum for insufficient contribution in preceding year..... | 1, 356, 072 | 1, 201, 497 |
| Contributions to communes according to article 49.....  | 123, 572    | 66, 524     |
| Traveling expenses to commissions in charge of teachers' examinations..   | 31, 121     | 31, 206     |
| Pensions to teachers.....   | 138, 280    | 114, 457    |
| Half pay to teachers without positions (art. 39).....   | 902         | 177         |
| Half pay to school inspectors (art. 92).....  |             | 923         |
| Subsidies to pension funds of officials employed in the school superintendency.....   |             | 605         |
| Contributions to private schools.....   | 336, 554    |             |
| Aggregate.....  | 2, 438, 955 | 1, 868, 676 |
|   | 1, 868, 676 |             |
| Increase in four years.....   | 570, 279    |             |

*Income of the Government for primary education.*

|  | 1893-94. | 1889-90. |
|--|----------|----------|
| School fees of practice schools connected with normal schools..... | \$5, 046 | \$5, 707 |
| Contributions of teachers toward the pension fund.....             | 75, 933  | 68, 103  |
| Balance covered back into treasury from former year.....           | 71, 512  | 36, 334  |
| Examination fees (art. 65 of the law).....                         | 12, 253  |          |
| Total.....   | 164, 744 | 110, 144 |
|  | 110, 144 |          |
| Increase in four years.....  | 54, 600  |          |

## RECAPITULATION.

|   |             |             |
|---|-------------|-------------|
| Total income from enumerated sources.....   | \$164, 744  | \$110, 144  |
| Total expenditures.....   | 2, 438, 955 | 1, 868, 676 |
| Excess of expenditures over income of schools paid from the treasury of the General Government..... | 2, 274, 211 | 1, 758, 532 |
|   | 1, 758, 532 |             |
| Increase in four years.....   | 515, 679    |             |

*Expenditures of communes for primary instruction.*

|   | 1893-94.      | 1889-90.      |
|---|---------------|---------------|
| Teachers' salaries.....                                   | \$3, 817, 102 | \$3, 391, 224 |
| Allowance for residences and rent of school premises..... | 66, 068       | 55, 396       |
| New schools.....  | 622, 785      | 365, 474      |
| Maintenance of school buildings.....                      | 207, 823      | 180, 903      |
| Furniture and material.....                               | 297, 534      | 247, 784      |
| Heating and lighting of schools.....                      | 194, 554      | 170, 515      |
| Local commissions.....                                    | 7, 277        | 7, 249        |
| Costs of competitive examinations of head teachers.....   | 4, 426        | 5, 412        |
| Pensions for teachers (1858).....                         |               | 50            |
| Subsidies to private schools.....                         | 15, 552       | 23, 107       |
| Training of teachers.....                                 | 64, 326       | 71, 023       |
| Payments to other communes.....                           | 24, 530       | 24, 309       |
| Rewards for faithful school attendance.....               | 15, 968       | 14, 754       |
| Miscellaneous expenditures.....                           | 51, 190       | 41, 079       |
| Total.....  | 5, 389, 136   | 4, 598, 279   |
|   | 4, 598, 279   |               |
| Increase in four years.....                               | 790, 857      |               |

*Income of communes from primary instruction.*

|   | 1893-94.                   | 1889-90.    |
|---|----------------------------|-------------|
| School fees.....  | \$633, 801                 | \$553, 385  |
| Government subsidies toward pensions.....   | 29, 265                    | 29, 265     |
| Indemnifications by the General Government in conformity with article 45 of the law.....    | 1, 284, 560                | 1, 165, 162 |
| Government contributions (see art. 49) .....  | 123, 572                   | 66, 524     |
| Contributions from other communes.....  | 24, 506                    | 24, 294     |
| Raising of special funds (this includes a loan from the General Government of \$3,657)..... | 15, 411                    | 16, 715     |
| Total .....   | 2, 111, 115<br>1, 855, 345 | 1, 855, 345 |
| Increase in four years.....   | 255, 770                   |             |

## RECAPITULATION.

|   |                            |               |
|---|----------------------------|---------------|
| Total income from enumerated sources .....  | \$2, 111, 115              | \$1, 855, 345 |
| Total expenditures .....  | 5, 389, 136                | 4, 598, 279   |
| Excess of expenditures over income of schools paid from the treasury of the communes..... | 3, 278, 021<br>2, 742, 934 | 2, 742, 934   |
| Increase in four years.....   | 535, 087                   |               |

The following table gives a review of the actual expenditures of the General Government and the communes together for primary instruction for the years 1878 to 1893, inclusive. The income is for school fees, etc.:

| Year.      | Expenditures. | Income.    | Year.      | Expenditures. | Income.     |
|------------|---------------|------------|------------|---------------|-------------|
| 1878 ..... | \$3, 347, 998 | \$501, 574 | 1887 ..... | \$5, 240, 801 | \$644, 863  |
| 1879 ..... | 3, 480, 013   | 509, 375   | 1888 ..... | 5, 257, 927   | 654, 876    |
| 1880 ..... | 3, 886, 816   | 523, 307   | 1889 ..... | 5, 166, 009   | 664, 545    |
| 1881 ..... | 4, 645, 314   | 545, 339   | 1890 ..... | 5, 225, 007   | 693, 551    |
| 1882 ..... | 5, 782, 735   | 543, 939   | 1891 ..... | 6, 061, 788   | 721, 029    |
| 1883 ..... | 6, 602, 262   | 561, 678   | 1892 ..... | 6, 506, 124   | 737, 142    |
| 1884 ..... | 5, 961, 522   | 593, 259   | 1893 ..... | 6, 319, 181   | 766, 950    |
| 1885 ..... | 5, 085, 133   | 620, 060   |            |               |             |
| 1886 ..... | 5, 209, 401   | 631, 691   | Total..... | 83, 778, 051  | 9, 913, 178 |

The subsidies received by the communes from the General Government have been deducted from the communal expenditures and income, otherwise these sums would have been counted twice.

The difference between expenditures for primary instruction and income from the same, 1878-1893, amounting to \$73,864,873, was paid out of the General Government and communal treasuries.

A new regulation came into operation in the Netherland Indies on November 1, 1894, for the primary schools of Europeans and that portion of the population that has been assimilated with the Europeans. For the Island of Java there has been established a public school in every group that has not less than 20 European pupils, and for the neighboring islands 1 school in each community containing 15 European pupils. These schools are also accessible to the native children who are assimilated with Europeans, provided they have a sufficient knowledge of the Dutch language. These schools include the children of the



black soldiers who are of African descent and have embraced Christianity. Such schools are partly coeducational, though there are special schools for girls. The scheme of instruction embraces reading, writing, arithmetic, the elements of the Dutch language, history of Holland and the Netherland Indies, geography, elements of natural sciences, singing, drawing, gymnastics, and in the special schools for girls, needlework. The supervision of primary instruction is intrusted to a director, assisted by several inspectors and a local commission. For inspection the Netherland Indies are divided into three divisions, the first comprising a part of Java (Bantam, Batavia, Cheribon, etc.), Sumatra, and West Borneo; the second, the rest of Java (Tegal, Pekalonga, Samarang, Japara, etc.) and South Borneo; the third, the Island of Celebes, the Moluccas, and the small islands. Beside these there are a number of private schools that are entitled to a subsidy from the Government.

#### THE NORMAL SCHOOLS (KWEEKSCHOLEN).

Normal schools are provided for by article 39, section 1, of the regulations approved by the royal decree of May 28, 1879.

In the official reports on education in Holland we find the normal schools and institutions for the training of teachers and head teachers, although properly classified under secondary instruction, included under the heading of primary instruction.

A large number of normal institutions are maintained and provided for by the State, which are designated as training schools and city normal courses.

The State grants a subsidy to all normal schools that are founded by the communes; they must, however, meet the requirements of the State institutions. A practice school (*leerschool*) is connected with each normal school, in which the students practice teaching.

The directors and teachers of normal schools are appointed by the King, and such schools have a four-years course with four classes. In each class there are about 20 students.

In normal schools for young men, which are day schools, students may live at the homes of private families in the vicinity, while normal institutes for young women are generally boarding schools, in all of which the scholastic year commences on the first Monday in September. Holidays of eight days at Easter and ten at Christmas are given, as well as a six-weeks vacation preceding the first Monday in September.

Candidates desiring admission to a normal school must pass an examination before the director and teachers in accordance with a programme arranged by them and approved by the minister of the interior. This programme is published every January in the *Nederlandsch Staatscourant*. Candidates obtaining the highest marks are admitted. They must have attended ordinary elementary schools and preparatory classes for normal courses before they can be admitted to the regular course of a normal institute. Teachers must require all students to attend

religious instruction, which is given at stated hours, and also their churches. Books and school material are furnished free of cost.

The programme of every normal school includes: (1) Reading; (2) writing; (3) arithmetic; (4) composition; (5) the Dutch language; (6) general and natural history; (7) geography; (8) natural sciences; (9) singing; (10) violin and piano; (11) principles of the French, German, and English languages; (12) mathematics; (13) pencil drawing; (14) gymnastics; (15) agriculture; (16) theory of teaching and pedagogy.

The minister of the interior can temporarily dispense with subjects 11 to 15.

#### I. STATE TRAINING SCHOOLS FOR TEACHERS (MEN). (RIJKSKWEEK-SCHOLEN VOOR ONDERWIJZERS.)

On September 1, 1893, there were 463 students enrolled in 6 training schools maintained by the Government. Of 130 students in the higher class, 78 obtained diplomas at the final examinations held in 1894. The practice schools which are connected with the training schools numbered 1,661 students. These practice schools are regular primary schools supported by the State (Government), and they employ about 58 teachers. Sixty-nine teachers were employed in the normal schools, besides 8 gymnastic teachers.

The following table shows the distribution of students, pupils, and teachers in the above-mentioned schools, 1893-94:

|                        | Normal schools. |           | Practice schools. |           |
|------------------------|-----------------|-----------|-------------------|-----------|
|                        | Students.       | Teachers. | Pupils.           | Teachers. |
| 's Hertogenbosch ..... | 84              | 11        | 240               | 7         |
| Nijmegen .....         |                 |           |                   |           |
| Haarlem .....          | 96              | 13        | 239               | 8         |
| Middelburg .....       | 72              | 12        | 309               | 10        |
| Deventer .....         | 78              | 10        | 293               | 10        |
| Groningen .....        | 68              | 11        | 280               | 10        |
| Maastricht .....       | 70              | 12        | 300               | 13        |
| Total .....            | 468             | 69        | 1,661             | 58        |

The above table does not include the gymnastic teachers. Eighty-one persons made application for admission to the new normal school in Nijmegen for the course beginning in January, 1894. Sixty-five students attended the courses of gymnastics for teachers of gymnastics at Haarlem, Deventer, Groningen, and Maastricht.

The programme of the State normal schools includes: (1) The Hollandish language, reading, grammar, orthography, and literature; (2) writing; (3) natural and general history; (4) mathematical, physical, and economical geography and drawing of charts; (5) arithmetic; (6) composition; (7) natural sciences (history, physics, and chemistry); (8) singing and harmony; (9) pedagogics (education and instruction); (10) drawing; (11) mathematics (algebra and geometry); (12) modern languages; (13) horticulture and agriculture; (14) anatomy; (15) physiology and hygiene, and (16) gymnastics.

*Expenditures for State normal schools and practice schools.*

|                             | 1893-94. | 1889-90. |
|-----------------------------|----------|----------|
| Teachers' salaries.....     | \$71,877 | \$78,887 |
| For students.....           | 50,996   | 57,941   |
| Material.....               | 16,988   | 19,255   |
| Total.....                  | 139,861  | 156,083  |
|                             | 156,083  | .....    |
| Decrease in four years..... | 16,222   | .....    |

## II. NORMAL COURSES SUSTAINED BY THE STATE (RIJKSNORMAAL-LESSEN).

At the close of 1893 there were 43 State normal courses in operation of Class A and 53 of Class B. These courses extend over four years and include four progressive classes.

The programme of normal course B includes the Dutch language, reading and writing, national history, geography, arithmetic, geometry, natural history, singing, pedagogy, and useful handiwork for girls, besides manual training for boys. The programme of normal course A includes the same subjects and in addition thereto general history, pencil drawing, mathematics, gymnastics, and one of the modern languages.

Candidates who have successfully completed the course of primary instruction are admitted to the preparatory class up to 14 years of age; those over 14 can enter the normal course.

A director is at the head of each of these institutions, which are connected with practice schools. The scholastic year commences April 1, and closes March 31, the holidays and vacations during the year not exceeding six weeks in all. The annual school programme is arranged each January at a meeting of the teachers and the director.

Three thousand and twenty-seven students, 1,480 male and 1,547 female, attended these courses in 1893-94. Several city normal courses had been suspended in 1889 on account of a decrease in attendance; 2,698 students, 1,481 male and 1,217 female.

## III. TRAINING SCHOOLS FOR TEACHERS SUPPORTED BY COMMUNES (GEMEENTELIJKE KWEEKSCHOLEN).

There are three institutions of this kind:

(1) *The training school in Amsterdam* is coeducational, and has two parallel divisions. Division 1 is for the training of those who aspire to the rank of a teacher; division 2 is for teachers aspiring to the rank of head teacher, or for persons who study special branches. All students of the highest grade (class 4) took part in the final examination. The course of division 1 embraces four years and is attended by pupils from 14 to 18 years of age, the first two years being devoted to theoretical instruction; the last two to theoretical and practical training.



Practical training is acquired in the practice school of the normal school, or in public or private schools of Amsterdam, this conforming to regulations of article 8 of the law. Instruction and school material are provided free of cost. Male students who distinguish themselves can obtain a scholarship of \$30 per annum. There were 25 students, 12 men and 13 women, who passed successful examinations, besides 2 women who were not admitted the year before.

One hundred and fifty-four students attended the school in the beginning of the year and 12 additional students entered during the run of the year. The number of teachers in the normal and practice school, inclusive, was about 25. In 1889 there were 133 students in attendance. These schools are under the jurisdiction of the school superintendent and local commission of primary instruction.

(2) *The training school for teachers (coeducational) in Leyden.*—At the end of the year 1893–94 this school numbered 28 head teachers, 8 female head teachers, 54 male and 32 female teachers, 9 female teachers with certificates conforming to article 56a, 89 normal pupils, 31 aspirant normal pupils, and 20 other students who studied special branches. Students under 15 are not admitted, and aspirants for the lowest grade must have attained the age of 13 years. None can enter without a preliminary examination. The course is completed in six years. Pedagogics and violin or piano instruction belong to the course of study.

Twenty-two normal pupils were admitted to the final examination coming under article 56a of the law on primary instruction, and 18 passed successfully; and 11 out of 13 passed at a later examination. Eleven teachers, 10 male and 1 female, obtained the diploma coming under article 56b of the law; 3 men and 1 woman in the French language; 1 woman in German; 4 women in English. There were about 25 teachers employed. A practice school is connected with the training school.

(3) *Training school for female teachers in Groningen.*—This was founded by the Society of Public Good (1816), and has since 1882 been supported by the commune. The school opens May 1, and closes April 30 each year. The burgomaster and aldermen are the superintendents; a special commission of supervision is appointed by the local council, by whom are also appointed the directress and the other teachers. The annual fee amounts to \$20 each. Students from other communes are accommodated by private families at a cost of \$160 per annum for board and room.

The course for 1893 opened on May 1 with 54 students and about 17 teachers, including 7 teachers in the primary department of the institution. Five of these students who attended the fourth class (highest) passed a successful examination at the end of the year and obtained teachers' certificates. These three schools received from the Government a total of \$15,692, or, respectively, \$9,648, \$2,122, \$3,922.



IV. PRIVATE NORMAL SCHOOLS AND COURSES FOR MEN AND WOMEN  
(INRICHTINGEN VAN BIJZONDEREN AARD, TER OPLEIDING VAN  
ONDERWIJZERS AND ONDERWIJZERESSEN).

The following private normal schools, out of a total of 57 in the country, received subsidies from the Government in 1893:

|  |          |
|--|----------|
| Training school for female teachers in Arnhem.....   | \$4, 215 |
| Christian normal school for female teachers in Zetten.....                                   | 2, 295   |
| Christian normal school in Nijmegen.....   | 2, 170   |
| Groen van Prinsterer school in Doetinchem.....   | 1, 897   |
| Christian normal school in The Hague.....  | 2, 283   |
| Normal training school of the Reformed Church for male and female teachers in Amsterdam..... | 2, 372   |
| Training school for female teachers in Haarlem.....  | 3, 522   |
| Roman Catholic training school in Eijsden.....   | 1, 938   |
| Roman Catholic training school in Echt.....  | 1, 873   |
| Total.....   | 22, 565  |

The following numbers of students were enrolled in the above-mentioned normal schools: 714 males and 1,151 females; of these, 67 and 126, respectively, obtained teachers' certificates.

The normal courses, 89 in number, had an attendance of 689 male students and 896 female students; 266 persons took private lessons from 95 of the principals of normal schools, 137 men and 129 women.

*Review of State normal courses, training schools supported by communes, and of private institutions for the training of teachers, showing on December 31, 1893, an enrollment of 4,946 students.*

|                                       | 2,098 male students. |        |                                 | 2,848 female students. |        |                                 |
|---------------------------------------|----------------------|--------|---------------------------------|------------------------|--------|---------------------------------|
|                                       | 1893.                | 1889.  | Difference<br>in<br>four years. | 1893.                  | 1889.  | Difference<br>in<br>four years. |
| State normal courses:                 |                      |        |                                 |                        |        |                                 |
| Students.....                         | 1, 277               | 1, 279 | — 2                             | 1, 326                 | 1, 011 | +315                            |
| Diplomas obtained.....                | 171                  | 313    | —142                            | 181                    | 202    | — 21                            |
| Normal courses supported by communes: |                      |        |                                 |                        |        |                                 |
| Students.....                         | 107                  | 145    | — 38                            | 371                    | 275    | + 96                            |
| Diplomas obtained.....                | 19                   | 37     | — 18                            | 41                     | 65     | — 24                            |
| Private institutions:                 |                      |        |                                 |                        |        |                                 |
| Students.....                         | 714                  | 382    | +332                            | 1, 151                 | 488    | +663                            |
| Diplomas obtained.....                | 67                   | 72     | — 5                             | 126                    | 84     | + 42                            |

*Review of the number of normal schools and institutions, and number of pupils enrolled, at beginning of the school year 1893-94.*

|   | Schools. | Pupils. |
|---|----------|---------|
| State training schools.....                   | 7        | 468     |
| State normal courses.....                     | 96       | 3, 027  |
| Communal training schools.....                | 3        | 443     |
| Private normal schools.....                   | 57       | 1, 865  |
| Private normal courses.....                   | 89       | 1, 585  |
| Head teachers giving private instruction..... | 95       | 266     |
| Courses for head teachers.....                | 26       | 894     |
| Total 1893-94.....                            | 373      | 8, 548  |
| Total 1889-90.....                            | 189      | 4, 556  |

The number of head teachers giving private instruction to aspirant teachers was not given in the annual report for 1889-90, nor the number of private normal courses.

#### V. COURSES FOR THE TRAINING OF HEAD TEACHERS.

In 1893 there was a total of 26 institutions of this kind in 25 cities (2 in Leeuwarden). The enrollment was 671 male and 223 female students, or a total of 894; 175 students, 143 male and 32 female, obtained the diploma of head teacher.

In 1889 there were only 22 of these institutions, with 786 students in attendance.

##### *Expenditures for the training of teachers.*

|   | 1893-94.           | 1889-90.  |
|---|--------------------|-----------|
| State normal schools.....                     | \$139,866          | \$156,085 |
| State normal courses.....                     | 160,308            | 185,660   |
| State subventions to normal institutions..... | 54,881             | 19,722    |
| Expenditures by communes.....                 | 64,327             | 71,024    |
| Total.....                                    | 419,382<br>432,491 | 432,491   |
| Decrease in four years.....                   | 13,109             |           |

Three hundred and fifty-five thousand and fifty-five dollars of the total expenditure for 1893 and \$361,467 for 1889 were provided for by the General Government, while \$64,327 for 1893 and \$71,024 for 1889 were paid out of the communal treasury.

#### SECONDARY INSTRUCTION (MIDDELBAAR ONDERWIJS).

There were in 1890 two inspectors of secondary instruction: Dr. W. B. J. van Eyk, The Hague (1886), for the provinces of North Brabant, Gelderland, Zealand, Utrecht, Overijssel, and Limburg; Dr. A. T. van Aken, The Hague (1883), for South Holland, North Holland, Friesland, Groningen, and Drenthe; F. B. Löhnis (1892) having charge of the agricultural schools.

Secondary instruction is based upon the law of May 2, 1863, amended by the laws of June 28, 1876, and April 25, 1879.

Until the enactment of the law of 1857 the burgher schools, which corresponded to German "Realschulen," had been classed as primary only. It was then found necessary to establish intermediate schools, which are a grade between primary and higher schools. The law of 1863 classed the burgher schools, higher burgher schools, agricultural schools, polytechnical schools, and all industrial schools under secondary instruction.

Schools of secondary instruction are either public or private, the public being those established and maintained by communes, provinces, and the State, separately or conjointly, and all others are private. Pri-

vate secondary or middle schools may, however, receive subsidies from communes, provinces, or the State.

Secondary tuition given to children of not more than three families is considered home instruction. Secondary instruction is gratuitous, but the highest fee in communal schools is \$5 per annum, and in higher burgher schools, supported by the State, it is \$25 per annum.

*Officials having charge of secondary instruction.*—The minister of the interior is the supreme authority, and invests the local commissions, who are elected by the local council, with the supervision of the various institutions. In 1893 there were 8 commissions, consisting of 97 members, in charge of examining such persons as desired to obtain a diploma of secondary teacher. Each commission has a president. The 3 inspectors of secondary instruction are nominated by the King; one of them having special superintendence of the State agricultural school. For the manual-labor training schools there are several ladies appointed on the board of commissioners. The directors of the higher burgher schools are in charge of the general supervision of everything pertaining to these schools.

*Teachers.*—Only persons holding a diploma of recognized universities and secondary training schools, and a certificate of good moral standing, as required by law, are allowed to impart secondary instruction. From this rule are exempted (1) persons who instruct children of one family only; (2) those who do not make teaching their profession, but have obtained a concession from the King to teach without remuneration.

In the higher burgher schools only male teachers are employed.

The head teacher has the title of director, and all teachers are nominated by the King. The director regulates the programme in conjunction with the teachers. Directors and teachers must obtain a permit from the minister of the interior before accepting a position at any public or private institution, or for giving private lessons. Foreigners must apply to the King for concessions.

Directors and teachers of higher burgher schools supported by the communes are appointed by a local council from a list of candidates recommended by local authorities.

Pensions are regulated by articles 31 to 35 of the law. Teachers are considered as Government officials and are all entitled to a pension from the State, and in determining the amount of pension the length of time spent in the public service is taken into consideration. The directors and teachers contribute annually to the general pension fund, and the communes refund to the Government one-half of the sum spent in pensions. The regulations governing the pensions of primary teachers agree in the principal points with those governing the pensions of secondary instructors.

I. BURGHIER DAY AND EVENING SCHOOLS, AND INSTITUTIONS CLASSED WITH THEM ACCORDING TO ARTICLE 14 OF THE LAW.

They are classified as follows:

1. Burgher day and evening schools.
2. Apprentice schools.
3. Trade schools.
4. Drawing and industrial schools.
5. The Academy of Liberal Arts in Rotterdam.
6. Private burgher day and evening schools.

Most of these schools are evening schools. They were established principally for the purpose of training artisans, mechanics, and agriculturists. In each community of 10,000 inhabitants or more at least one burgher day and evening school must be established by the communal authority. The King can suspend this regulation where the inhabitants of a community live so far apart that it would be inconvenient for the pupils to attend such a school, or if other provisions have been made to fulfill the requirements. School fees may be collected, but not to exceed \$5 per annum. A total of 39 institutions of this kind are in operation in the larger cities:

(a) Thirty-two of class 1 are evening schools; the school at Leeuwarden is the only day school of this kind. There is only one school of class 2. These schools together had a total of 3,593 pupils enrolled in December, 1893.

Thirteen hundred and seventy-six candidates were examined for admission to the schools at the beginning of the course. Of these 1,001 passed and 375 failed. At the final examination there were 285 pupils examined, of whom 237 passed and 48 failed.

Two hundred and ninety-two teachers were employed in the above schools.

(b) There were 6 schools of classes 3 to 6 in operation: The trade school in The Hague, the Academy of Liberal Arts, the trade school in Rotterdam, and the drawing school in Delfshaven (Rotterdam), the private burgher evening school in Leyden, and the industrial school in Helder, with an attendance of 1,563 pupils; teachers, 127.

Three hundred and thirty-two candidates were examined for admission at the beginning of the course, of which number 104 failed to pass; 228 were admitted. At the final examination 69 were successful and 8 failed.

One hundred and forty-seven teachers employed in schools of classes 1 and 2, and 7 employed in the schools of classes 3 to 6, inclusive, taught in the higher burgher schools also.

The total sum expended for teachers' salaries was, in schools of classes 1 and 2, \$49,089; classes 3 to 6, inclusive, \$30,116; total, 1893-94, \$79,205; 1889-90, \$70,429; increase in four years, \$8,776.



*General totals.*

| Year.                       | Schools. | Pupils. | Teachers. | Expenditures for salaries. |
|-----------------------------|----------|---------|-----------|----------------------------|
| 1893-94.....                | 40       | 5,156   | 419       | \$79,204                   |
| 1889-90.....                | 39       | 4,500   | 405       | 70,429                     |
| Increase in four years..... | 1        | 656     | 14        | 8,775                      |

## II. INDUSTRIAL AND DRAWING SCHOOLS, PROFESSIONAL SCHOOLS, ETC.

There were 27 public, 19 subsidized private, and 5 nonsubsidized private institutions of the first and second classes, and 20 of the latter; of these 17 were subsidized. They embrace day and evening schools.

| Year.                       | Schools. | Pupils enrolled. | Teachers. |
|-----------------------------|----------|------------------|-----------|
| 1893-94.....                | 71       | 8,358            | 513       |
| 1889-90.....                | 61       | 5,526            | 353       |
| Increase in four years..... | 10       | 2,832            | 160       |

The institution called "Colony Nederlandsch Mettray" was founded in 1851 by Willem Hendrik Suringer for needy and neglected children of the Protestant church. After having finished the regular course the pupils are trained in agricultural or industrial pursuits, etc. Only pupils from 10 to 14 years of age are admitted. Many entertain the erroneous idea that "Mettray" is a reformatory colony, but anyone who visits it can easily recognize its object. The income of the institution is derived from gifts, annual contributions, interests from legacies, rents from farms, remuneration for work performed in the workshops, etc., and from registration fees.

For a boy attending 1 of the 35 divisions a fee of \$32 per annum must be paid; those attending all divisions pay \$60 and an entrance fee of \$4. The colony is superintended by 7 commissioners and 4 inspectors, each of the latter living in 1 of the 4 family dwellings. Besides these there are head masters, 1 in each workshop, and 7 teachers.

The programme of the foregoing schools includes the following studies: Mathematics, first principles of theoretical and applied mechanics and a thorough knowledge of instruments, physics and chemistry, natural history, technical knowledge of agriculture, rudiments of geography and history, Hollandish, fundamental knowledge of political economy, pencil and rectilinear drawing, and gymnastics. The local council may add to this programme the principles of technology, modeling, and one of the modern languages.

The directors of the burgher schools are appointed by the local council from the list of applicants approved by the mayor and magistrates, after having been examined by the inspector. The number of teachers and their salaries are fixed by the local council, and must be approved by the States-General.

The teachers of industry are trained at the normal schools and State Academy of Liberal Arts in Amsterdam and at the Academy of Liberal Arts at The Hague.

Directors and teachers of burgher schools, whose maintenance is imposed upon the communes, are pensioned by the Government. The community, however, refunds half of the sum to the State, which sum is added to the State budget. Other expenses for burgher schools must be met by the communes.

### III. HIGHER BURGHER SCHOOLS.

These schools are principally for the training of overseers, superintendents, and the commercial classes. They are divided into two grades, one comprising a course of five years and the other a course of three years.

By virtue of the law there shall be not less than 12 higher State burgher schools in operation in the country, and in at least 5 of these the course must be five years. Anybody wishing to be admitted to such a school must pass an examination before the director and teachers, and pupils can not be promoted to higher classes without a previous public examination, but they may be transferred from a higher burgher school to another and be placed in the grade to which they belong, provided they have a certificate from the director of the school which they hitherto attended. The courses commence on the first Monday in September, three school vacations being given during the year, from the middle of July to the beginning of the course, at Christmas, and at Easter, each of the last two lasting ten days.

There are in all 61 higher burgher schools in existence; 20 are maintained by the Government, 28 by the communes receiving subsidies, 12 are nonsubsidized communal schools, and 1 a Roman Catholic institution. These were attended by 6,166 young men taking a full course and 243 students pursuing elective studies. Forty schools admitted young girls, and were attended by 282 taking a full course and 104 pursuing elective studies.

The young men were distributed in the different classes of schools as follows: One thousand three hundred and seventy-three regular, and 107, or 7.7 per cent, following elective courses, in the 20 higher State burgher schools. The other schools numbered 5,036 attendants, besides 136, or 2.7 per cent, taking elective studies. The courses of gymnastics were followed by only 4,989 of the total students.

The final examinations of these institutions are regulated by articles 55 and 57 of the law, May 2, 1863 (Stbl. No. 50), and March 10, 1883 (Stbl. No. 31), and are conducted in the following manner:

(1) The royal commission nominates a board of examiners before May 1 of each year, and the parish is informed of the place and time of examinations.

(2) The law requires oral and written examinations. The latter

comprise 10 branches and the former 5 different groups of subjects: Mathematics and mechanics; physics; historical, commercial, and political sciences; modern languages and literature; Netherland-Indian languages and pencil and rectilinear drawing; in all, 17 branches.

(3) The board of examiners is divided into subcommissions, one for each subject, and each subcommissioner determines on the oral examination in the special subject to which he has been assigned, or the written examination.

(4) After the discussion and preparation of the various exercises the conclusions are sent to the inspectors, who make selections from the proposed questions, which are then printed at Government expense with absolute secrecy, and the printed forms are sealed up in packages and forwarded to the respective directors.

(5) Written examinations take place on the same day in all cities, and the results are forwarded to the president of the committee.

(6) The oral examination may include all branches, but must embrace all those belonging to the written examinations. The commission determines the length of time permitted each candidate for the different subjects, while the president regulates the time spent on the oral examination.

(7) The answers to each of the 5 groups are rated by figures, from 1 to 10.

About 300 candidates present themselves each year for the final examinations. Making allowance for a moderate programme, five hours is allowed each candidate—two hours for mathematics and physics, one for history and geography, and two for languages—or a total of fifteen hundred hours, or fifty days, for all examinations; but as some of the schools require two days, the real aggregate is seventy-two days. This calculation, of course, can only be considered approximate, since at many of these schools there are more than twelve candidates. The certificates are distributed gratuitously, but diplomas of final examinations at agricultural, technological, and engineering schools require a fee of \$16.

Examinations for teachers of secondary schools and for home instructors are also held once a year, the mode of which is prescribed by the law.

Of 2,348 pupils who presented themselves for admission to the lowest class, 1,692, or 72 per cent, passed the examination, and 656, or 27.94 per cent, failed.

Three hundred and fifty-five were examined for admission to a higher class, of which 179 passed, 72 entered a lower grade, and 104 failed. There were also 140 students who entered classes without previous examinations—68 in 10 State and 72 in 19 communal higher burgher schools.

Eight hundred and eight teachers were employed at the higher burgher schools (this leaving 4 vacancies), 175 having a doctor's degree,

21 candidates (that is, young theologians who had recently graduated), 488 teachers having diplomas of secondary instruction, 35 with previous diplomas, 35 with certificates conforming to articles 82 and 89, 6 to article 90, and 34 to article 83; 14 without certificates. Twenty-seven of these teachers were employed at more than one school, which reduces the number of teachers to 777. One hundred and forty-four teachers were employed at 11 higher State burgher schools with a five-years course, 81 at 9 higher State burgher schools with a three-years course, 565 at 40 higher burgher schools supported by the communes with three or five years courses.

Higher burgher schools for boys have a laboratory with accommodations for each student, who is supplied with all necessary appurtenances including a desk with drawers for materials. Here he learns the more important chemical combinations by practical experiments, instead of committing to memory only and learning merely the qualities of the principal elements. Schools of this kind are also furnished with extensive collections of specimens in natural history, besides special conveniences for studying anatomy.

The salaries of teachers of the higher State burgher schools ranged from \$1,005 to \$1,407 for directors, who in two instances are furnished with free residence, and from \$402 to \$1,000 and over for the remaining number of teachers.

At the higher burgher schools supported by communes the salaries ranged from \$964 to \$2,200 for directors (free residence in five instances), though there were three cases where directors received less than \$964. They ranged from \$402 to \$1,000 and above for the regular teachers. The expenditures for salaries for higher State burgher schools amounted to about \$158,237 and for the communal higher burgher schools to about \$400,628, or a total of \$558,865; in 1889, \$506,756.

*Programmes of higher burgher schools.*—The five-years course includes mathematics; principles of theoretical and applied mechanics; knowledge of instruments and technology; physics and its principal applications; fundamental knowledge of mineralogy, geology, botany, and zoology; rudiments of cosmography; origin of communal, provincial, and State constitutions of Holland; political economy and statistics, especially of the Netherlands and its colonies; geography; history; Hollandish, French, English, and German literature; Latin and Malayan languages; elementary knowledge of commerce, especially of merchandise and bookkeeping; penmanship; pencil and rectilinear drawing, and gymnastics. The three-years course includes mathematics; first principles of physics and chemistry; principles of botany, zoology, and mineralogy; bookkeeping; geography; history; Hollandish, French, and English languages; penmanship; pencil and rectilinear drawing, and gymnastics.

The programmes for secondary schools for girls differ in some



respects, but they include bookkeeping, mathematics, and chemistry, besides literature. In the secondary schools for both sexes much importance is attached to modern languages and literature. Reading of classical authors as well as the literature of foreign countries is largely encouraged, and conversation in foreign languages during recreation hours is enforced upon young girls who attend these schools. The branches of natural sciences are assiduously cultivated.

#### IV. SECONDARY (OR MIDDLE) SCHOOLS FOR GIRLS.

These institutions are supported solely by the communes or private parties. There were in all 12 in operation in 1893, one of which was private. The school fees for a complete course are \$20 to \$40 per annum; for elective studies from \$4 to \$24 per annum for each subject. These courses cover three or five years, and each school has 5 classes. In 40 schools girls have been admitted to the classes of the higher schools for young men. In every instance the young men show the greatest deference for their girl fellow-students. Nothing detrimental to the cause of coeducation has been noticed in these schools.

The following table shows the places where these schools are located, and the number of pupils:

*Secondary (or middle) schools for girls.*

| Cities.                      | Pupils attending complete courses. |               |              |               |              |        | Pupils for elective studies. | General total. |
|------------------------------|------------------------------------|---------------|--------------|---------------|--------------|--------|------------------------------|----------------|
|                              | First class.                       | Second class. | Third class. | Fourth class. | Fifth class. | Total. |                              |                |
| Arnhem .....                 | 27                                 | 12            | 10           | 8             | 8            | 65     | 6                            | 71             |
| The Hague .....              | 35                                 | 41            | 26           | 19            | 10           | 131    | 3                            | 134            |
| Rotterdam .....              | 36                                 | 45            | 38           | 26            | 24           | 169    | 5                            | 169            |
| Leyden .....                 | 25                                 | 19            | 13           | 16            | 10           | 83     | 5                            | 88             |
| Dortrecht .....              | 27                                 | 30            | 13           | 10            | 8            | 88     | 11                           | 99             |
| Amsterdam .....              | .....                              | .....         | 40           | 32            | 22           | 94     | 6                            | 100            |
| Amsterdam (private) .....    | 13                                 | 14            | 10           | 14            | 7            | 58     | 1                            | 59             |
| Haarlem .....                | 32                                 | 50            | 40           | 24            | 27           | 173    | .....                        | 173            |
| Utrecht .....                | 51                                 | 46            | 31           | 12            | 19           | 159    | .....                        | 159            |
| Leeuwarden .....             | 54                                 | 37            | 17           | 15            | 9            | 132    | 2                            | 134            |
| Deventer .....               | .....                              | .....         | 12           | 7             | 9            | 28     | 5                            | 33             |
| Groningen .....              | 56                                 | 45            | 33           | 21            | 14           | 169    | 16                           | 185            |
| Total 1893-94 .....          | 356                                | 339           | 283          | 204           | 167          | 1,349  | 55                           | 1,404          |
| Total 1889-90 .....          | 332                                | 348           | 268          | 211           | 140          | 1,299  | 67                           | 1,366          |
| Increase in four years ..... | .....                              | .....         | .....        | .....         | .....        | .....  | .....                        | 38             |

Gymnastics are taught in all these institutions except in the public secondary schools in Amsterdam and Dortrecht; 939 pupils of those taking a complete course attended the courses of gymnastics.

*Examinations.*—Three hundred and fifteen young girls made application for admission to the lowest class in these schools; 273, or 86.5 per cent, passed a satisfactory examination, and 42, or 13.5 per cent, failed. This result was less favorable than in the preceding year, 91 per cent being admitted. Of 36 examined for a higher grade, 26 were promoted, 2 entered a lower grade, and 8 failed. At the transition examination from the courses of 1892 to 1893, 889 pupils were successful and 166 could not be promoted.

One hundred and twenty-five female teachers were employed in these schools, 113 of whom held diplomas of secondary instruction, 4 diplomas as head teachers, and 8 had no certificates. There were, moreover, 27 male teachers, 20 of these having doctors' diplomas or the title of "candidate," 14 with diplomas of secondary instruction, 2 had no certificates, and 1 a certificate conforming to article 82. The teachers without diplomas were employed for singing and needlework.

The annual remuneration of the directresses ranged from \$964 to \$1,286, and in Rotterdam, Dordrecht, Utrecht, and Deventer they are entitled to free residence. The salaries of the teachers, male and female, ranged from \$420 to \$630 per annum, and the total spent in salaries for directresses was \$12,422, and for teachers \$71,176. In 1889 these sums amounted to \$12,381 and \$66,179.

#### V. AGRICULTURAL SCHOOLS.

*The State agricultural school at Wageningen* is the largest and best known, and has a higher burgher school connected with it. The attendance in 1893 was as follows: 66+1 students in the higher burgher school division; 62+1 students in Division A of agricultural school, 41+1 students in Division B, and 22 students in Division C.

This gives a total of 191 regular attendants, and 3 hearers—that is, persons who come to listen to the lectures without paying fees. The two latter divisions have been established especially for higher scientific training in agriculture; each division has several classes. The students ranged from 12 to 18 years of age and above. An experiment station is also connected with the State agricultural school, at which numerous agricultural researches were made by the students. The examinations were very satisfactory. Fifty-two students in the higher burgher school division were promoted to higher classes at the beginning of the course of 1893; 42 out of 47 in Division A, and 21 out of 26 in Division B, and 12 out of 16 in the highest class obtained diplomas. Six in Division C were promoted to the highest class and 6 others were granted diplomas. About 29 teachers were employed. Enrollment in 1889, 123 students and 4 hearers.

In the Gerard Adriaan van Swieten Landbouwschool, at Willemsoord, opened in October, 1890, the number of students must not exceed 20. They are to be trained for two years theoretically, and also practically on the farms of the Society for Public Good.

Only 7 pupils attended in 1893, under 4 teachers.

There are, moreover, 2 horticultural schools, the "Tuinbouwschool," of Amsterdam, and the "Gerard Adriaan van Swieten Tuinbouwschool," of Fredericksoord, opened in 1884, with an attendance of 27 and 40 pupils. Thirteen teachers were employed. The age for admission is 15 years, and school fees are \$24, \$34, or \$40 per annum. The total of students in 1889 was 45.

In the School of Forestry, "Gerard Adriaan van Swieten Bosch-

bouwschool," opened in 1888, 7 pupils followed the course in 1893, under 4 teachers. Boys supported by the Society of Public Good receive not only gratuitous instruction in the school of Fredericksoord, but also free board. This school receives a state subsidy of \$250; 10 students and 4 teachers in 1889.

Besides the above-mentioned agricultural and horticultural schools, there are other similar institutions in the country, and winter courses have been established in various cities, to which the Government extends subsidies. In the official report of Holland for 1893-94 we find 36 sums itemized, representing State subsidies for as many winter courses and agricultural schools.

Establishments with courses in dairy farming are maintained by 4 private associations in Oudshoorn, Bolsward, Friesland, and Geldern, and the Government in 1889 granted subsidies of \$1,206, \$1,608, \$402, and \$482, respectively, for their maintenance. These courses were attended by about 293 pupils, and 12 teachers were employed. There is no record for 1893.

The accompanying programme will suffice to show the relative value placed in the agricultural schools on the several branches of study pursued: Political economy, practical mathematics (surveying, leveling, mensuration, etc.), mechanical science as applied to agriculture and the use of agricultural machines; the construction and arrangement of farm buildings; rectilinear drawing as applied to agricultural science and machinery; natural philosophy; chemistry and meteorology in their application to agriculture, general and special botany, and zoology; the anatomy and physiology of plants and animals; the distinguishing characteristics of the different domestic animals, their diseases and medical treatment; general and special agriculture; vegetable and fruit gardening, and the cultivation of timber and fruit trees, etc. .

#### VI. THE POLYTECHNIC SCHOOL IN DELFT.

This institution is intended for the training of (a) those following industrial pursuits, and for technologists requiring a higher grade of technical and theoretical knowledge than they could acquire in the higher burgher schools comprising a five years' course; (b) civil engineers, architects, and architectural engineers.

Every student of the polytechnic school pays \$80 in advance for the annual course, which entitles him to all the advantages of the school. Those taking elective studies pay only for the subjects chosen, at the rate of \$4 per annum for each study, with one recitation per week. For four or more recitations per week the fee is \$16 per annum for each study. No entrance fees are required, and the names of students are recorded at the beginning of each school year. The course commences on the first Monday in September.

Head masters and teachers are appointed by the King, and the supervision of the polytechnic school is in the hands of a director, who is likewise nominated by the King. He is assisted in his duties by a



council consisting of the head masters of the school of which he is the president and from which the secretary is elected. The director, assisted by the council, arranges the course for the following year in May, and such programme as may be then prepared must be submitted to the minister of the interior for his approval. The director also has the general supervision over the museum and professional training departments presided over by the head master or teacher in charge of the various branches of instruction in the polytechnic school of the Kingdom.

Most of the students who have taken the course of the polytechnic school in Delft and wish to go to the East Indies as Government officials prepare themselves for such positions by taking a two or three years course in the school at Leyden for the training of officials in the East Indian service, where they are taught the Java, Malay, and Boegine languages, etc. The East Indian languages, while they are taught at Delft, do not receive that special attention that is given at Leyden, for the reason that a great proportion of the students at Delft take a second course of study at Leyden. The school in Leyden is not only open to officers in the civil service, but is free to all doctors, missionaries, etc., who are destined for service in the East Indies. To all others the tuition fee is \$75, paid in advance. No entrance fees are required.

The programme of the polytechnic school includes the higher algebra, spherical trigonometry, and analytical geometry; descriptive geometry and its applications, differential and integral calculus, surveying, leveling, and surface measurements, theoretical mechanics, applied mechanics, machinery, mechanical technology, applications of natural science, applied, practical, and analytical chemistry, chemical technology, modern manufactures, mineralogy and geology, applied geology and the working of mines, metallurgy, hydraulics, road, railroad, and bridge building, civil architecture, shipbuilding, rectilinear drawing, instruction in the use of tools, instruments, and the turning lathe; construction of models, political economy, commercial law, laws relating to engineering, public works, mining, and all industrial works.

Two hundred and forty-one students attended a complete course of engineering and technology, while 84 students pursued elective studies. There were consequently 325 students in attendance, besides two ladies attending lectures. The first-named students were all graduates from a higher burgher school, having a five years' course. Age of students from 19 to 23 years.

The results of final examinations were as follows: Of 142 candidates applying for examination, 17 withdrew, 101 obtained diplomas, and 24 failed. These examinations are regulated by articles 61 to 65 of the law.

Opportunities are offered the students to make practical experiments with surveying and measuring instruments. The teaching corps consists of about 34 persons; 1 director, 14 professors, 9 teachers, 8 assist-



ants, and 2 teachers in modeling. Five amanuenses and 1 librarian are attached to the teaching staff.

One hundred and seventy-one new works were added to the library, besides various journals, and 2,100 books were loaned out during the year.

Numerous new objects were presented, or purchased for the department of decorative architecture, the laboratories, the department of natural sciences, and others.

#### VII. SCHOOLS OF NAVIGATION.

Schools of navigation are presented in the accompanying table, with the number of teachers, students, and those receiving a certificate, and the salaries of teachers:

| Communes.                    | Name and class of schools.                    | Teachers. | Pupils.         |                          |                      | Salaries of directors. | Total salaries. |
|------------------------------|---|-----------|-----------------|--------------------------|----------------------|------------------------|-----------------|
|                              |   |           | December, 1893. | During the year 1893-94. | Receiving a diploma. |                        |                 |
| The Hague.....               | Subsidized naval school ...                   | 1         | 50              | 65                       | .....                | \$482                  | \$482           |
| Rotterdam .....              | Public naval school.....                      | 11        | 41              | 73                       | 43                   | 1,206                  | 5,548           |
| Amsterdam .....              | Private training school....                   | 13        | 82              | 115                      | 14                   | .....                  | .....           |
| Do .....                     | Subsidized private school of Seaman's Home.   | 8         | 53              | 107                      | 15                   | 1,085                  | 4,140           |
| Helder .....                 | Subsidized private naval school.              | 4         | 17              | 20                       | 1                    | 643                    | 1,327           |
| Terschelling .....           | Public naval school.....                      | 1         | 28              | 49                       | 7                    | 643                    | 643             |
| Vlieland .....               | do .....                                      | 1         | 9               | 10                       | 1                    | 523                    | 523             |
| Harlingen.....               | Subsidized private naval school.              | 4         | 25              | 60                       | 12                   | 804                    | 1,709           |
| Schiermonnikoog.             | Public naval school.....                      | 4         | 24              | 63                       | 27                   | 724                    | 1,367           |
| Groningen .....              | Subsidized private school of Minerva Academy. | 10        | 51              | 98                       | 24                   | 965                    | 2,967           |
| Delfzijl .....               | Subsidized private naval school.              | 8         | 71              | 111                      | 35                   | 643                    | 2,175           |
| Total 1893-94.....           |   | 65        | 453             | 771                      | 179                  | 7,718                  | 20,882          |
| Total 1889-90.....           |   | 39        | 276             | 443                      | 108                  | 5,827                  | 9,772           |
| Increase in four years ..... |   | 26        | 177             | 328                      | 71                   | .....                  | .....           |

a The salaries for 1889 were not given in six instances.

#### VIII. SCHOOLS FOR DEAF-MUTES AND BLIND.

The Institution of Rotterdam numbered 145 pupils, of which 119 received gratuitous instruction; 70 were partly cared for by the institution, and only 7 pupils paid fees, ranging from \$5 to \$60; 17 teachers were employed, not including the director and adjunct director; 163 pupils in 1889.

In the Institution of Groningen there were 179 pupils, most of whom were entirely cared for by the institution and only a few paid tuition fees. The teachers numbered about 30; 173 pupils in 1889.

The "St. Michiel's Gestel" enrolled 143 pupils, 83 boys and 67 girls. Most of these were entirely cared for by the institution. There were 8 teachers. The girls are taught by the Sisters of Charity; 156 pupils in 1889.

The Institute for the Blind at Amsterdam enrolled 58 children, 39

boys and 19 girls. Teachers employed, about 17 in number, were under a director; 61 pupils in 1889.

A total number of 526 pupils were enrolled in the above-mentioned institutions; teachers employed, 76, including the directors. In 1889 they numbered 558 pupils and 85 teachers.

#### IX. STATE NORMAL SCHOOL FOR THE TRAINING OF TEACHERS AND INSTRUCTORS IN DRAWING AND MODELING.

Twenty-four ladies and 27 gentlemen attended the course in pencil drawing in Division A, and 6 gentlemen the course in architectural and mechanical drawing in Division B. There were besides 7 visiting students (hospitants). The entire course embraces three years. Eleven of the students obtained diplomas at the final examination. The school employed 11 teachers. The practice school numbered 58 students, 6 girls and 52 boys. The total expenditure was \$8,369, or \$5,776 for teachers' salaries and \$2,593 for material. The income from tuition fees was \$951, this leaving an excess of expenditure over income of \$7,418, which was paid out of the Government treasury. Seventy-one students in 1889, besides 38 in practice school.

#### X. INSTRUCTION IN THE LANGUAGES, ETHNOLOGY, AND COUNTRIES OF THE NETHERLAND INDIES IN THE INSTITUTION OF DELFT.

One hundred and forty-three students were attending this school. All of these were graduates from higher burgher schools with a five-years course, or from gymnasia with a six-years course. One was a graduate from the agricultural school in Wageningen and one an officer on furlough from the East Indies. Twenty-one out of 46 candidates who passed the entrance examination of the school were rejected because their physique did not answer the requirements of the service in the Netherland Indies. In 1889 there were 73 students and 16 teachers.

The programme of the course is regulated by the burgomaster and the aldermen. It includes:

|                                   | Hours per week. |              |
|-----------------------------------|-----------------|--------------|
|                                   | First year.     | Second year. |
| Malayan language .....            | 3               | 5            |
| Javanese language .....           | 4               | 5            |
| Soendan language .....            | 2               | 3            |
| Madoere language .....            | 2               | 3            |
| Baline language .....             | 2               | 3            |
| Makassa or Boegine language ..... | 2               | 3            |
| Batak language .....              | 2               | 3            |

#### *Hours per week for both years.*

|   |   |
|---|---|
| History of the Netherland Indies .....  | 3 |
| Knowledge of the Netherland Indian countries and nations .....                | 4 |
| Religious services, national laws, and customs of the Netherland Indies ..... | 4 |
| State constitution of the Netherland Indies .....                             | 5 |
| Knowledge of law books of the Netherland Indies .....                         | 2 |

There is a similar school in Leyden, and its programme includes very much the same subjects. No record for 1893.

The libraries of both institutions have been considerably enlarged by the purchase of new books and by numerous books presented.

*Expenditures of the General Government for secondary instruction, 1889-90.*

|   |          |
|---|----------|
| Inspection .....  | \$3, 348 |
| State agricultural school .....   | 36, 147  |
| Polytechnic school .....  | 58, 999  |
| Higher State burgher schools .....  | 197, 729 |
| Subsidies for secondary schools maintained by communes .....  | 104, 752 |
| Indemnifications to the examining commissions at higher burgher schools ..                              | 12, 577  |
| Indemnifications to the examining commissions for examinations procuring<br>diplomas (article 65) ..... | 14, 078  |
| Subsidies to industrial and drawing schools and schools for deaf-mutes .....                            | 35, 222  |
| Total .....   | 462, 852 |

*Expenditures of the General Government for secondary instruction, 1893-94.*

|   |          |
|---|----------|
| Inspection .....  | \$5, 282 |
| State agricultural school .....                                     | 32, 396  |
| Polytechnic school .....  | 114, 622 |
| Higher State burgher schools .....                                  | 192, 989 |
| Subsidies to communal higher burgher schools .....                  | 93, 565  |
| Subsidies to professional schools .....                             | 32, 853  |
| Subsidies to agricultural and horticultural schools .....           | 12, 317  |
| Winter schools .....  | 2, 976   |
| Teachers of State agricultural schools .....                        | 6, 318   |
| Experiment stations, etc. (State agricultural) .....                | 23, 206  |
| Subsidies to naval schools .....                                    | 12, 703  |
| Indemnification to examining commissions .....                      | 32, 792  |
| Subsidies to schools of deaf-mutes, blind, and idiots .....         | 7, 356   |
| Subsidies to various educational institutions of the communes ..... | 11, 325  |
| Normal school for drawing teachers .....                            | 8, 369   |
| Industrial schools .....  | 9, 298   |
| Total .....   | 598, 467 |

|   |          |
|---|----------|
| Total income from tuition fees, diplomas: |          |
| 1893-94 .....                             | 45, 621  |
| 1889-90 .....                             | 37, 540  |
| Total expenditures:                       |          |
| 1893-94 .....                             | 598, 467 |
| 1889-90 .....                             | 462, 852 |

Excess of expenditures over income of schools, paid from the treasury of the General Government:

|                              |          |
|------------------------------|----------|
| 1893-94 .....                | 552, 846 |
| 1889-90 .....                | 425, 312 |
| Increase in four years ..... | 127, 534 |

*Expenditures for secondary instruction by the communes.*

|   | 1893-94.  | 1889-90.  |
|---|-----------|-----------|
| Higher burgher schools and burgher schools:   |           |           |
| Teachers' salaries .....  | \$439,740 | \$391,739 |
| Material .....  | 52,860    | 46,271    |
| Supervising commissions .....   | 1,540     | 1,457     |
| Subsidies to private schools .....  | 4,462     | 4,462     |
| Total .....   | 498,602   | 443,929   |
|   | 443,929   |           |
| Increase in four years .....  | 54,673    |           |
| Total income from subsidies and school fees .....   | \$180,908 | \$161,369 |
| Total expenditures .....  | 498,602   | 443,929   |
| Excess of expenditures over income of schools, paid from the treasury of the communes ..... | 317,694   | 282,560   |
|   | 282,560   |           |
| Increase in four years .....  | 35,134    |           |

Further expenditures were made for (a) the communal institutes in Delft and Leyden for the Netherland-Indies; (b) secondary schools for girls; (c) the commercial school at Amsterdam.

|  | 1893-94. | 1889-90. |
|--|----------|----------|
| Income of these institutions derived from school fees .....  | \$54,034 | \$42,074 |
| Total expenditures .....   | 128,435  | 117,738  |
| Excess of expenditures over income of the institutions, paid from the treasury of the communes ..... | 74,401   | 75,664   |
|  | 75,664   |          |
| Decrease in four years .....   | 1,263    |          |

The expenditures for 1893 included \$117,023 for teachers' salaries and \$11,412 for material; for 1889, \$108,215 for teachers' salaries and \$9,523 for material.

The communal expenditures for drawing and industrial schools and a few other institutions placed under this category (navy and gymnastic schools) were as follows:

|  | 1893-94. | 1889-90. |
|--|----------|----------|
| Instruction of pupils and care of school buildings ..... | \$22,903 | \$16,384 |
| Material .....   | 6,128    | 3,773    |
| Supervising commissions .....                            | 132      | 81       |
| Subsidies .....  | 93,230   | 81,044   |
| Total .....  | 122,393  | 101,282  |
|  | 101,282  |          |
| Increase in four years .....                             | 21,111   |          |



*Income derived from subsidies and school fees.*

|  | 1893-94. | 1889-90. |
|--|----------|----------|
| Government subsidies.....  | \$8,991  | \$4,770  |
| From provinces.....  | 2,808    | 2,341    |
| Schoolfees.....  | 2,440    | 1,388    |
| Total .....  | 14,239   | 8,499    |
|  | 8,499    |          |
| Increase in four years.....  | 5,740    |          |
| <hr/>  |          |          |
| Total income from enumerated sources.....  | \$14,239 | \$8,499  |
| Total expenditures .....   | 122,393  | 101,282  |
| Excess of expenditures over income of schools, paid from the treasury<br>of the communes ..... | 108,154  | 92,783   |
|  | 92,783   |          |
| Increase in four years.....  | 15,371   |          |

In consolidating the expenditures of the General Government, provinces, and communes for the above class of schools we obtain the following figures:

*Review of expenditures.*

|                             | Drawing and industrial schools. |          | Schools for deaf-mutes. |          | Total.    |          |
|-----------------------------|---------------------------------|----------|-------------------------|----------|-----------|----------|
|                             | 1893-94.                        | 1889-90. | 1893-94.                | 1889-90. | 1893-94.  | 1889-90. |
| Government .....            | \$98,736                        | \$47,009 | \$5,628                 | \$4,824  | \$104,364 | \$51,833 |
| Provinces.....              | 18,446                          | 15,801   | 2,957                   | 2,319    | 21,403    | 18,120   |
| Communes .....              | 110,594                         | 94,172   | 2,231                   | 1,638    | 112,825   | 95,810   |
| General total .....         | 227,774                         | 156,982  | 10,816                  | 8,782    | 238,590   | 165,764  |
|                             |                                 |          |                         |          | 165,764   |          |
| Increase in four years..... |                                 |          |                         |          | 72,826    |          |

The State granted pensions to seven teachers in 1894, amounting to \$3,100 in all.

## XI. STATE TRAINING SCHOOLS FOR MIDWIVES.

[Regulated by the royal decree of July 27, 1882.]

There are two schools of this kind, (*a*) at Amsterdam, and (*b*) at Rotterdam. Thirty-five and 38 students were in attendance, of whom 24 were graduated at the close of the year. The Government expenditures amounted to \$5,927 and \$10,262 respectively; in 1889 to \$5,161 and \$10,034. Number of teachers employed, 8. Two hundred and forty-five patients were cared for during the year in these institutions.

## XII. THE STATE VETERINARY SCHOOL IN UTRECHT.

[Regulated by the law of July 8, 1874.]

This school was attended by 60 students; 25 were boarding and 35 day scholars. The course comprises four years. The commission granted a diploma of veterinary doctor to 12 candidates; 21, or 75 per

cent out of 28 students, attending the first and second years' course of study, were promoted to a higher class, and 15, or 48.4 per cent of 31 belonging to the third and fourth years' course of study, passed very successful transition examinations.

The museums of anatomy, natural history, and pathology, the laboratory, and various collections have been largely increased by new apparatus, instruments, models, etc. The library obtained 35 new works, besides 70 current periodicals and journals and works previously ordered.

An obstetric clinic for animals and a blacksmith forge belonging to the institution greatly facilitate practical studies.

The Government expenditures amounted to—

|                                   | 1893-94. | 1889-90. |
|-----------------------------------|----------|----------|
| Teachers and officials.....       | \$10,787 | \$10,053 |
| Superintendence of buildings..... | 5,045    | 5,063    |
| Material.....                     | 17,150   | 19,025   |
| Total.....                        | 32,982   | 34,741   |
|                                   | 34,741   |          |
| Decrease in four years.....       | 1,759    |          |

The income of the veterinary school amounted to—

|  | 1893-94. | 1889-90. |
|--|----------|----------|
| Fees from students.....  | \$4,272  | \$5,160  |
| Fees from other sources.....   | 3,427    | 4,438    |
| Total.....   | 7,699    | 9,598    |
|  | 9,598    |          |
| Decrease in four years.....  | 1,899    |          |
| Total income from sources enumerated.....  | 7,699    | 9,598    |
| Total expenditures.....  | 32,982   | 34,741   |
| Excess of expenditures over income paid out of the treasury of the General Government..... | 25,283   | 25,143   |
|  | 25,143   |          |
| Increase in four years.....  | 140      |          |

The Netherlands report a goodly number of army and navy schools:

I. The higher military school opened a course in 1893-94 for lieutenants and lieutenant-quartermasters of the army. The course of military art was followed by 40 officers, and the course relating to the management of military affairs by 10 officers. The programme includes several East Indian languages.

II. A course for officers of hygiene at the military hospital in Utrecht, attended by 1 graduate of the State University of Leyden, 2 military druggists, 1 "military horse doctor," and 2 district veterinary physicians.

III. (A) The Royal Military Academy at Breda, regulated by the law of May 30, 1877 (Stbl. No. 141), etc., and sanctioned by the royal decree of August 11, 1883 (Stbl. No. 128). The course comprises four years.

The army school, having two divisions, is connected with the military academy, and is intended for the superior training of the lieutenants who were educated at the academy. The second division of this school is in The Hague, and is connected with the intendance course. Twenty-six lieutenants took part in the final examination of the first division.

The corps of cadets in the military academy numbered 254 students in the beginning of the school year; 176 were admitted to the examinations held in May, June, and July, 1894, and passed successfully. The teaching corps and officials, September 1, 1893, consisted of 39 military officers and 14 regular teachers.

Division II of the army school has 8 military teachers and 10 regular teachers.

(B) The artillery course in Delft is regulated by the royal decree of July 25, 1884 (No. 92), and of July 1, 1889 (No. 22). The course requires an attendance of three years. The number of volunteers was 20 on October 1, 1893. There were also 28 aspirant volunteers who submitted to a preliminary examination. Ten teachers are occupied.

(C) The military school of Haarlem, connected with a practical course, was attended by 49 infantry volunteers; 15 of these followed the preparatory practical course. There were 6 military teachers.

(D) Head courses at Kampen for second "grenadier" officers and light infantry. The attendance was 33 for home service, and 34 for the service in the East Indies in division 1. Division 2 embraces studies relating to military administration, with 16 and 12 students. Eleven military teachers and 3 regular teachers are in charge of the classes.

The Royal Military Academy at Breda is open only to young men who have passed a satisfactory examination at some higher burgher school at the end of a five-years course of study. The annual tuition fee is about \$150. The cadets in the Royal Military Academy can not enter the army, at home or abroad, before completing a four-years course of study in that institution. They enter the army as second lieutenants.

The military schools in Haarlem and Kampen are open to every boy above the age of 15 who is able to pass a primary examination. When these boys receive the rank of corporal in these schools they have the right to enter regiments in the home service or in the East Indies. Some of the students wait until they receive the rank of sergeant—some the rank of second lieutenant—before entering the regiments. These two institutions furnish tuition, board, and clothes, including uniforms, without cost to the student.

IV. The institutions for the training of cadets and officers and non-commissioned officers include:

(A) The school for cadets with a teaching corps of 12 officers of the army and 5 regular teachers, besides 1 captain and 4 lieutenants; 195 aspirant cadets were examined for the course in 1893-94; 45 were physically unfit for the service, and a total of 50 were admitted to the school with the rank of cadet.

(B) Courses for heavy armed and light infantry; 60 attending the first years' course, and 168 the second.

V. (A) The pupil school at Nieuwersluis, with 173 boys enrolled in July, 1893, 24 more entered during the year, while 91 left to join some company. These boys are children of soldiers, officers, Government officials. They are instructed by 4 teachers under the supervision of the director.

(B) The instruction battalion, with 3 classes, followed by 394 volunteers, October, 1893. In July, 1894, there were 499.

(C) The artillery instruction company, with 3 classes and 211 volunteers, on July 1, 1893.

(D) Instruction battery, with 75 volunteers, among these 31 titular corporals.

VI. Domestic schools for the various corps of the army, attended by an average number of 4,118; 944 of these learned to read and write well or tolerably well, 640 to write, and 515 to read.

All the above-named schools are intended for the training of young men as officers for the home service or the colonies; lieutenants of the artillery and engineering corps, superior officers, volunteers, lieutenants of infantry, young cadets, titular corporals, quartermasters, and sergeants, etc.

The naval schools include:

(A) The Royal Institution of Marine at Willemsoord, with Divisions I and II, these comprising a four-years course. Ninety-three midshipmen students were enrolled. The result of the examinations for promotions was very favorable for the year. The age of the applicants for admission must be 14 to 17 years. The entire tuition fee is \$643 or \$482, according to grade. The aim of this institution is to train young men for officers in the navy. The corps of teachers consists of 8 naval officers and 8 regular teachers. One library and several laboratories belong to the school.

(B) The training course for boys on board of the revenue cutter at Hellevoetsluis. The engineer apprentices numbered 18 in the upper division and 17 in the lower, October, 1893. Six teachers were engaged.

(C) Training of pilot apprentices on board the revenue cutter at Amsterdam. Eleven in each division; total, 22.

(D) Training course for boys as boatswains on board the instruction corvette *Nautilus*, at Hellevoetsluis, with 55 boatswain apprentices, 7 sailors of the third class, and 1 lighterman (apprentices) in division 1, 30 sailors of the third class and 47 lightermen (apprentices) in division 2.

(E) Training course for boys on board of instruction ship *Admiral van Wassenaer*. The winter course, October, 1893, commenced with 680 pupils. They are trained for second officers and inferior ranks in the navy.

VII. Training course of military pharmacists for the army of the East and West Indies. The course opened with 5 students.



According to an investigation ordered by the departement van oorlog (war department), we find that the total body of men who were incorporated in the land militia of the Netherlands numbered, 1893, 11,016; 1889, 10,735:

|                                   | 1893-94. |           | 1889-90. |           |
|-----------------------------------|----------|-----------|----------|-----------|
|                                   | Number.  | Per cent. | Number.  | Per cent. |
| Could read and write .....        | 10,289   | 93.40     | 9,826    | 91.53     |
| Could only read.....              | 115      | 1.04      | 137      | 1.28      |
| Could neither read nor write..... | 612      | 5.56      | 772      | 7.19      |

A similar investigation was ordered by the departement van marine (navy department) in regard to those incorporated in the sea militia. The results show that of 600 in both years mentioned above:

|                                   | 1893-94. |           | 1889-90. |           |
|-----------------------------------|----------|-----------|----------|-----------|
|                                   | Number.  | Per cent. | Number.  | Per cent. |
| Could read and write .....        | 578      | 96.3      | 559      | 93.1      |
| Could only read.....              | 3        | .5        | 14       | 23.3      |
| Could neither read nor write..... | 19       | 3.3       | 27       | 45        |

The lower courses of the above-named institutions include reading, writing, and the four fundamental rules of arithmetic, to read the time by the watch, rudiments of geography of the Netherlands, rudiments of national history regarding the marine and theoretical and practical instruction in the rudiments of the profession.

The military schools embrace in their programme all subjects that are appropriate for the respective branches, the lower grades including primary subjects.

*Review of the different classes of secondary schools—the number of pupils and teachers in 1889-90 and 1893-94.*

|  | Teachers and professors. |          | Pupils and students. |            |
|--|--------------------------|----------|----------------------|------------|
|  | 1893-94.                 | 1889-90. | 1893-94.             | 1889-90.   |
| Burgher schools .....  | 419                      | 405      | 5,156                | 4,500      |
| Industrial, drawing, and professional schools.....             | 513                      | 353      | 8,358                | 5,526      |
| Higher burgher schools.....                                    | 808                      | 750      | 6,166                | 5,390      |
| Middle schools for girls.....                                  | 152                      | 158      | 1,404                | 1,366      |
| Agricultural schools.....                                      | 50                       | 42+12    | 282                  | 178+a293   |
| Polytechnic school.....  | 34                       | 33       | 325                  | 251        |
| Schools for navigation.....                                    | 65                       | 39       | 771                  | 443        |
| Schools for the deaf-mutes and blind.....                      | 76                       | 85       | 526                  | 558        |
| State normal school for drawing and modeling.....              | 11                       | 11       | 122                  | 109        |
| Schools for the Netherlands-Indies.....                        | 16                       | 16       | 143                  | 73         |
| Training schools for midwives.....                             | 8                        | 7        | 73                   | 68         |
| State veterinary school.....                                   | 12                       | 12       | 60                   | 76         |
| Higher military schools and courses.....                       | 103                      | 105      | 806                  | 959        |
| Training courses for noncommissioned officers in the line..... | 15                       | 22       | 583                  | 937        |
| Domestic schools for the various corps of the army.....        | 228                      | 267      | 4,118                | 5,733      |
| Navy schools.....  | 36                       | 30       | 970                  | 1,002      |
| School for military pharmacists.....                           |                          |          | 5                    | 12         |
| General total .....  | 2,546                    | 2,335+12 | 29,858               | 27,191+293 |
| Increase in four years .....                                   | 211                      |          | 2,667                |            |

a Pupils in dairy-farming establishments; no record for 1893.

*Expenditures of the General Government for secondary schools, and the income derived from the same, since the promulgation of the law of 1863.*

| Year.      | Income from tuition fees, etc. | Expenditures. | Year.       | Income from tuition fees, etc. | Expenditures. |
|------------|--------------------------------|---------------|-------------|--------------------------------|---------------|
| 1863 ..... | 0                              | \$7,527       | 1880 .....  | \$37,826                       | \$396,859     |
| 1864 ..... | \$11,736                       | 56,081        | 1881 .....  | 37,062                         | 415,645       |
| 1865 ..... | 14,536                         | 143,783       | 1882 .....  | 39,226                         | 421,906       |
| 1866 ..... | 15,441                         | 201,344       | 1883 .....  | 39,668                         | 422,256       |
| 1867 ..... | 21,115                         | 261,954       | 1884 .....  | 39,443                         | 424,098       |
| 1868 ..... | 25,631                         | 273,366       | 1885 .....  | 39,873                         | 424,858       |
| 1869 ..... | 30,771                         | 330,545       | 1886 .....  | 39,678                         | 410,585       |
| 1870 ..... | 29,708                         | 304,437       | 1887 .....  | 37,818                         | 425,792       |
| 1871 ..... | 32,732                         | 304,879       | 1888 .....  | 37,405                         | 428,474       |
| 1872 ..... | 35,624                         | 306,565       | 1889 .....  | 37,540                         | 427,650       |
| 1873 ..... | 36,423                         | 328,448       | 1890 .....  | 38,167                         | 429,706       |
| 1874 ..... | 34,959                         | 353,389       | 1891 .....  | 38,077                         | 440,786       |
| 1875 ..... | 36,003                         | 348,134       | 1892 .....  | 41,006                         | 521,143       |
| 1876 ..... | 39,019                         | 369,544       | 1893 .....  | 45,621                         | 562,019       |
| 1877 ..... | 40,237                         | 395,827       |             |                                |               |
| 1878 ..... | 40,750                         | 375,977       | Total ..... | 1,031,968                      | 10,911,935    |
| 1879 ..... | 38,873                         | 398,384       |             |                                |               |

The above figures do not include the subsidies for drawing academies and schools, nor for the schools for the deaf-mutes and blind. The difference between expenditures and income from tuition fees and diplomas, \$9,879,972, was provided for out of the treasury of the General Government.

The following figures show the expenditures by communes for higher burgher schools and burgher schools, including the secondary schools for girls, etc., and of the income from these schools, from 1863 to 1893, inclusive:

| Year.      | Income from school fees, diplomas, etc. | Expenditures. | Year.       | Income from school fees, diplomas, etc. | Expenditures. |
|------------|---|---------------|-------------|---|---------------|
| 1863 ..... | 0                                       | 0             | 1880 .....  | \$179,295                               | \$497,145     |
| 1864 ..... | \$14,896                                | \$82,188      | 1881 .....  | 179,338                                 | 510,385       |
| 1865 ..... | 43,088                                  | 245,450       | 1882 .....  | 179,764                                 | 531,068       |
| 1866 ..... | 71,508                                  | 235,044       | 1883 .....  | 180,553                                 | 577,536       |
| 1867 ..... | 83,283                                  | 265,921       | 1884 .....  | 184,914                                 | 554,288       |
| 1868 ..... | 91,049                                  | 282,687       | 1885 .....  | 185,775                                 | 554,056       |
| 1869 ..... | 104,374                                 | 271,700       | 1886 .....  | 188,719                                 | 552,985       |
| 1870 ..... | 120,563                                 | 288,537       | 1887 .....  | 195,223                                 | 560,141       |
| 1871 ..... | 128,113                                 | 319,242       | 1888 .....  | 197,738                                 | 557,454       |
| 1872 ..... | 142,206                                 | 344,629       | 1889 .....  | 203,443                                 | 561,667       |
| 1873 ..... | 145,438                                 | 351,666       | 1890 .....  | 212,437                                 | 583,216       |
| 1874 ..... | 150,085                                 | 371,624       | 1891 .....  | 219,589                                 | 594,593       |
| 1875 ..... | 155,754                                 | 418,788       | 1892 .....  | 229,722                                 | 612,656       |
| 1876 ..... | 159,837                                 | 406,285       | 1893 .....  | 234,942                                 | 627,037       |
| 1877 ..... | 161,974                                 | 445,454       |             |   |               |
| 1878 ..... | 168,532                                 | 454,686       | Total ..... | 4,685,966                               | 13,128,560    |
| 1879 ..... | 174,314                                 | 470,432       |             |   |               |

The excess of the total expenditures over the income derived from fees, \$8,442,594, was provided for out of the communal treasury.

#### SUPERIOR INSTRUCTION (HOOGER ONDERWIJS).

The present system of higher instruction is based upon the law of April 28, 1876, amended and modified by laws of May 7, 1878; June 28, 1881; June 15, 1883, and July 23, 1885.

Institutions of higher instruction are divided into public and private. Public, are those established and maintained by communes and the

State, separately and conjointly. All other institutions are called private, or "bijzondere," schools. Under article 192 of the fundamental law, any person may teach the higher branches, subject to supervision by the proper authority.

Foreigners must obtain a permit from the King before they can be employed as teachers of the higher branches, in either public or private institutions.

Public higher instruction is provided for and taught in three State universities—in the gymnasia and progymnasia, and in the Communal University of Amsterdam.

The "gymnasia" and Latin schools correspond to the German gymnasium, while the courses given at the denominational "seminaria" and other superior institutions of this kind answer to the universities; but only the latter can confer academic degrees.

#### STATE UNIVERSITIES.

By the royal decree of February 17, 1890, the corps of officials at these universities was made to conform to the decrees of February 8, 1889, and February 16, 1889.

*State University of Leyden* (with 5 faculties).—The college of curators consists of 5 members.

The senate is composed of 7 members, all being professors, namely, 1 rector, 1 secretary and 4 assessors, 1 archivist. Each faculty has 1 chairman and 1 secretary; in all, 10 members, with the title of professor.

This university had 47 professors. In the faculty of theology, 5; of law, 8; of medicine, 9; of mathematics and natural sciences, 11; of letters and philosophy, 14. There were also 3 lecturers and 9 private tutors, or a total force of 59 teachers.

*State University of Utrecht* (with 5 faculties).—The college of curators consists of 6 members. The senate is composed of 6 members, viz: One rector, 1 secretary and 3 assessors, 1 archivist.

Each faculty has 1 chairman and 1 secretary, all having the title of professor.

The corps of teachers comprises 37 professors. In the faculty of theology, 4; of law, 6; of medicine, 10; of mathematics and natural sciences, 10; of letters and philosophy, 7. To this number must be added 4 lecturers and 9 private tutors (docents), which gives a general total of 50.

*State University of Groningen*.—The college of curators consists of 6 members. The senate is composed of 7 members; 1 rector, 1 secretary, and 5 assessors.

Each faculty has 1 chairman and 1 secretary, all having the title of professor.

The University of Groningen embraces the faculties of theology, law, medicine, mathematical and natural sciences, and of letters and philosophy.

The corps of professors comprises 35 members. For the faculty of theology, 4; of law, 4; of medicine, 8; of mathematics and natural sciences, 9; and of letters and philosophy, 10. There were also lecturers and assistants, making a general total of 40.

On reaching the age of 70, the professors in the universities are pensioned. The amount of their pension is determined by the number of years they have taught, but can never exceed the sum of \$1,206 per annum. The professors in the Catholic institutions are also pensioned by the Government, and their pensions equal the salary of a Catholic priest.

If the professors fail to perform their duties in a satisfactory manner, the minister of the interior may suspend them for a period of five weeks. Serious misdemeanor might be punished by removal from office.

The curators, through the secretaries of the faculties, make detailed reports to the minister of the interior on all subjects connected with the universities. They do not receive a permanent salary for the performance of their duties, but are allowed by the Government \$3 per day when they are actually engaged in the performance of their duty (30 cents per hour when traveling and expenses incurred for board and lodging).

The curators report, on November 1 of each year, to the minister of the interior, making an estimate of the expenses for the coming year; and in accordance with this statement the minister requests the sum needed, which is paid out of the State treasury from moneys derived from the general revenue taxes of the country.

*Students registered in State universities.*

| University.    | For all studies. |          | For single studies. |          | General total. |          | Increase in four years. |
|----------------|------------------|----------|---------------------|----------|----------------|----------|-------------------------|
|                | 1893-94.         | 1889-90. | 1893-94.            | 1889-90. | 1893-94.       | 1889-90. |                         |
| Leyden.....    | 770              | 750      | 23                  | 27       | 793            | 777      | + 16                    |
| Utrecht.....   | 613              | 547      | 19                  | 35       | 632            | 582      | + 50                    |
| Groningen..... | 453              | 387      | 30                  | 24       | 483            | 411      | + 72                    |
| Total.....     | 1,836            | 1,684    | 72                  | 86       | 1,908          | 1,770    | + 138                   |

The annual tuition fees for a full course of study in the different faculties are \$80, \$76, \$56, \$44, \$40; for single studies, \$24, \$18, \$12, \$6.



*Students entered without payment of tuition fees.*

| Reasons for exemption.   | Leyden.  |          | Utrecht. |          | Groningen. |          | Total.   |          |
|--|----------|----------|----------|----------|------------|----------|----------|----------|
|  | 1893-94. | 1889-90. | 1893-94. | 1889-90. | 1893-94.   | 1889-90. | 1893-94. | 1889-90. |
| Students who had already paid \$320 to the professors and lecturers...                       | 190      | 185      | 171      | 124      | 166        | 134      | 527      | 443      |
| Students who under the rules of article 106 of the law had already paid \$160 <i>a</i> ..... | 11       | 5        | 23       | 36       | 13         | 8        | 47       | 49       |
| Those admitted to promotions .....   | 80       | 98       | 3        | 2        | 20         | 8        | 103      | 108      |
| Those granted State scholarships .....   | 6        | 6        | 6        | 6        | 6          | 6        | 18       | 18       |
| Officials of the universities .....  | 7        | 3        | 4        | 3        | 2          | 2        | 13       | 8        |
| Druggists in the army, in conformity with regulations of royal decree of May 6, 1883 .....   |          |          | 4        | 10       |            |          | 4        | 10       |
| By virtue of royal decree of May 6, 1886, No. 41 .....                                       |          | 1        |          | 2        | 1          | 3        | 1        | 6        |
| Article 66, 1st section of the law on superior instruction <i>b</i> .....                    | 31       | 8        |          | 1        |            |          | 31       | 9        |
| Total .....  | 325      | 306      | 211      | 184      | 208        | 161      | 744      | 651      |

*a* Students in a theological seminary of the Reformed Church are allowed, under the above-mentioned conditions, to attend the lectures of their professors or lecturers at the university.

*b* Remitted on account of death.

The following table shows distribution of students according to studies in 1893-94:

|                             | Theology.    | Law. | Medicine. | Mathematics and natural sciences. | Letters and sciences. | Total.       | Total in 1889-90. |
|-----------------------------|--------------|------|-----------|-----------------------------------|-----------------------|--------------|-------------------|
| Leyden:                     |              |      |           |                                   |                       |              |                   |
| All lectures .....          | 64           | 240  | 347       | 69                                | 50                    | 770          | 750               |
| 2 lectures .....            | 1            | 1    |           | 3                                 | 4                     | 9            | 8                 |
| 1 lecture .....             |              |      | 2         | 5                                 | 7                     | 14           | 19                |
| Total .....                 | 65           | 241  | 349       | 77                                | 61                    | 793          | 777               |
| Utrecht:                    |              |      |           |                                   |                       |              |                   |
| All lectures .....          | 139          | 72   | 276       | 89                                | 37                    | 613          | 547               |
| 2 lectures .....            |              |      |           | 6                                 |                       | 6            | 24                |
| 1 lecture .....             |              |      | 1         | 11                                | 1                     | 13           | 11                |
| Total .....                 | <i>a</i> 139 | 72   | 277       | 106                               | 38                    | <i>b</i> 632 | 582               |
| Groningen:                  |              |      |           |                                   |                       |              |                   |
| All lectures .....          | 52           | 55   | 235       | 74                                | 37                    | 453          | 387               |
| 2 lectures .....            |              |      |           | 2                                 | 4                     | 6            | 14                |
| 1 lecture .....             | 1            |      |           | 10                                | 6                     | 17           | 10                |
| $\frac{1}{2}$ lecture ..... |              |      |           |                                   | 7                     | 7            |                   |
| Total .....                 | 53           | 55   | 235       | 86                                | 54                    | 483          | 411               |
| General total .....         | 257          | 368  | 861       | 269                               | 153                   | 1,908        | 1,770             |

*a* This number includes 18 Germans and 1 Hungarian.

*b* Including 16 ladies.

Increase in four years, 138 students.

The Government grants six beneficiary scholarships in each of the universities to young men who have distinguished themselves in their former studies, the university receiving from the State \$320 for each student in annual installments for the complete course. These moneys are derived from ecclesiastical funds that are realized from ancient estates which formerly—before the Reformation in 1517—were used for the installation of a Pope or bishop, but since the Reformation the Sovereign or Government has taken possession of these funds, which are

now disbursed by nonofficials or by committees under the direct supervision of the State.

Students who receive financial assistance from the Government are at liberty to select any of the courses of study allowed in the university.

In order to present a correct idea of the studies pursued in a Dutch university, the following table, presenting a series of lectures and lessons for 1889-90, is given:

*University of Leyden.*

| Lecture or lesson.  | Number of hours during week. | Average number of hearers. | Lecture or lesson.   | Number of hours during week. | Average number of hearers. |
|---|------------------------------|----------------------------|--|------------------------------|----------------------------|
| Department of theology:   |                              |                            | Department of medicine—Cont'd.                               |                              |                            |
| Exegesis of the Old Dispensation and history of Israelitish literature..... | 3                            | 25                         | Topographical anatomy.....                                   | 2                            | 80-90                      |
| Ethics.....   | 3                            | 20                         | Experiments in anatomy.....                                  | 12                           | 20-50                      |
| Historical facts on the church service of the Israelites.....               | 3                            | 15                         | Theoretical ophthalmology.....                               | 3                            | .....                      |
| Comparative history of religious services.....                              | 1                            | 15                         | Theoretical otology.....                                     | 1                            | 60-70                      |
| General history of religious services.....                                  | 2                            | 25                         | Ophthalmological and otological clinics and polyclinics..... | 18                           | .....                      |
| History of religious doctrines.....   | 1                            | 16                         | Courses in eye examinations.....                             | 2                            | .....                      |
| Source of the knowledge of the Babylonian-Assyrian religious services.....  | 1                            | 2                          | Medical clinic.....  | 5                            | 40-100                     |
| Oratory.....  | 1                            | 25                         | Pharmacology.....  | 1                            | 50                         |
| History of Christianity.....  | 3                            | 22                         | Pharmaceutics.....   | 2                            | 40                         |
| History of the dogmas of Christian church services.....                     | 1                            | 26                         | Diagnostics.....   | 3-4                          | 35                         |
| Research in church chronicles and writings.....                             | 1½                           | 7                          | Medical clinic.....  | 3                            | 120                        |
| Ancient Christian literature.....   | 2                            | 20                         | Medical polyclinic.....                                      | 3                            | 120                        |
| Interpretations of the New Testament.....                                   | 2                            | 30                         | General pathology.....                                       | 4                            | 56                         |
| Criticism of texts.....   | 1                            | 12-20                      | Hygiene and medical practice.....                            | 1                            | 70                         |
| Philosophy of the church service.....                                       | 2                            | 29                         | Bacteriology.....  | 1                            | 30                         |
| Philosophical history of church service.....                                | 1                            | 29                         | Practical experiments in pathology and bacteriology.....     | 4                            | 1-12                       |
| Encyclopedia of theology.....   | 1                            | 24                         | Chirurgical clinic.....                                      | 12                           | 100                        |
| Department of law:  |                              |                            | Theoretical surgery.....                                     | 2                            | 30                         |
| Dutch civil rights.....   | 3                            | 35                         | Practical surgery.....                                       | 4                            | 160                        |
| Commercial law.....   | 3                            | 35                         | Physiology.....  | 4                            | 90                         |
| Privilege of suitors.....   | 2                            | 30                         | Histology.....   | 1                            | 80                         |
| Public law.....   | 3                            | 40-50                      | Practical experiments.....                                   | 8                            | 25                         |
| International law.....  | 3                            | 6                          | Do.....  | 8                            | 25                         |
| Administrative law.....   | 3                            | 6                          | Do.....  | 8                            | 10                         |
| Dutch history of Dutch law.....   | 4                            | 1                          | Gynecological obstetric clinic.....                          | 3-6                          | 50                         |
| Rights of colonists.....  | 3                            | 13-17                      | Gynecological polyclinic.....                                | 3-6                          | 20                         |
| Civil rights in the Netherlands.....  | 3                            | 9                          | Theoretical science of obstetrics.....                       | 2                            | 30                         |
| Special subjects on Mohammedan rights.....                                  | 2                            | 10                         | Theoretical gynecology.....                                  | 1                            | 80                         |
| Islam dogmas.....   | 2                            | 10                         | Science of operations.....                                   | 1                            | 60                         |
| Commercial law.....   | 3                            | 20-60                      | Practical experiments of operations.....                     | 5                            | 15-20                      |
| Penalties.....  | 2                            | 30-60                      | Pathological anatomy.....                                    | 2                            | 80-90                      |
| Encyclopedia of laws.....   | 4                            | 25                         | Practical pathological histology.....                        | 4                            | 40                         |
| Legal philosophy.....   | 2                            | 4                          | Dissecting.....  | 4-5                          | .....                      |
| Political economy.....  | 3                            | 20                         | Medical jurisprudence—                                       |                              |                            |
| Special branches of political economy.....                                  | 2                            | 8-16                       | For lawyers.....   | 1                            | .....                      |
| Statistics.....   | 1                            | 8                          | For physicians.....  | 1                            | 30-40                      |
| History and origin of the Roman law.....                                    | 7                            | 30-40                      | Department of mathematics and natural science:               |                              |                            |
| Treatment of special problems for candidates.....                           | 2                            | 10-14                      | General botany (morphology, anatomy, and physiology).....    | 3                            | 50                         |
| Department of medicine:   |                              |                            | Special botany (photography and taxonomy).....               | 1                            | 10                         |
| Anatomy of the human body.....  | 3                            | 80-90                      | Practical experiments.....                                   | 4                            | 12                         |
|   |                              |                            | Classification of plants.....                                | 2-4                          | 6                          |
|   |                              |                            | Excursions for study.....                                    | (a)                          | 6                          |
|   |                              |                            | Selected subjects.....                                       |                              |                            |
|   |                              |                            | Higher science of algebra.....                               | 2                            | 9                          |
|   |                              |                            | Algebraic analysis.....                                      | 1                            | 9                          |
|   |                              |                            | Differential calculus.....                                   | 2                            | 3                          |
|   |                              |                            | Integral calculus.....                                       | 3                            | 4                          |

a One-half day.

*University of Leyden—Continued.*

| Lecture or lesson.   | Number of hours during week. | Average number of hearers. | Lecture or lesson.                                     | Number of hours during week. | Average number of hearers. |
|--|------------------------------|----------------------------|--|------------------------------|----------------------------|
| Department of mathematics and natural science—Continued.             |                              |                            | Department of letters and philosophy—Continued.        |                              |                            |
| Problems.....  | 2                            | 8                          | Practical exercises in composition.....                |                              |                            |
| Synthetic and descriptive geometry.....                              | 3                            | 5                          | National history.....                                  | 3                            | 7                          |
| Higher analytical geometry.....                                      | 2                            | 3                          | History of the Dutch Government.....                   | 2                            | 5                          |
| Theoretical mechanics.....   | 3                            | 8                          | First Sanscrit college.....                            | 2                            | 1                          |
| Elementary astronomy.....  | 3                            | 5                          | Second Sanscrit college.....                           | 2                            | 2                          |
| Practical astronomy.....   |                              |                            | Comparative grammar of the Indo-Germanic language..... | 2                            | 2                          |
| Theoretical astronomy.....   | 3                            | 4                          | Zend-Avesta.....                                       | 2                            | 1                          |
| Astrognosy.....  | 1                            | 5                          | Indian science of archæology.....                      | 1                            | 1                          |
| Calculations of problems.....  | 1                            | 4                          | Russian.....   | 2                            | 1                          |
| Inorganic chemistry for doctors and philosophers.....                | 4                            | 70-80                      | Arabian:   |                              |                            |
| Inorganic chemistry for philosophers only.....                       | 1                            | 7                          | First year.....  | 6                            | 6                          |
| Principles of inorganic chemistry.....                               | 2                            | 25                         | Second year.....                                       | 4                            | 2                          |
| Theoretical chemistry for candidates.....                            | 1½                           | 3-4                        | Third year.....  | 3                            | 1                          |
| Practical experiments for philosophers.....                          | 2                            | 12                         | Fourth year.....                                       | 3                            | 2                          |
| Practical experiments for physicians.....                            | 6                            | 54-75                      | Fifth year.....  | 3                            | 1                          |
| Organic chemistry.....   | 6                            | 60-70                      | Logic.....   | 2                            | 20                         |
| Practical experiments for physicians and students of philosophy..... | 4                            | 60-80                      | Greek philosophy.....                                  | 2                            | 4                          |
| Practical experiments for advanced students.....                     |                              | 1-4                        | Psychology.....  |                              | None.                      |
| Organic experiments for advanced students.....                       | 2                            | 2-3                        | Theoretical philosophy.....                            |                              |                            |
| Practical experiments in the pharmaceutical laboratory.....          |                              | 9-10                       | Hebrew.....  | 3                            | 10                         |
| Comparative anatomy.....   | 2                            | 72                         | Jewish history.....                                    | 3                            | 10                         |
| Zoology for students of medicine.....                                | 1                            | 72                         | Advanced Hebrew.....                                   | 2                            | 3                          |
| Special principal studies for candidates of botany and zoology.....  |                              | None.                      | Do.....  | 2                            | 3                          |
| Comparative embryology, with microscopic demonstrations.....         | 3                            | 68                         | Modern Hebrew.....                                     |                              | None.                      |
| Practical experiments for students of medicine.....                  |                              |                            | Javanese.....  | 9                            | 6                          |
| Practical experiments for candidates.....                            |                              | None.                      | Madoere language.....                                  |                              | None.                      |
| Geology.....   |                              | None.                      | Gothic.....  | 1                            | 7-9                        |
| Mineralogy and crystallography.....                                  | 2                            | 5                          | Anglo-Saxon.....                                       | 2                            | 1                          |
| Paleontology.....  | 1                            | 1                          | Old German.....  |                              | None.                      |
| Theoretical experiments.....   | 2                            | 5                          | Chinese language and literature.....                   | 6                            | 3                          |
| Theoretic natural science.....                                       | 3                            | 12                         | Latin language and literature.....                     | 3                            | 13                         |
| Elementary physics.....  |                              |                            | Do.....  | 3                            | 17                         |
| Practical experiments in physics for students of medicine.....       | 8                            | 8                          | Roman antiquities.....                                 | 2                            | 13                         |
| Differential and integral calculus for students of chemistry.....    | 1                            | 3                          | General history.....                                   | 4                            | 5                          |
| Elementary mechanics.....  | 2                            | 8                          | Political geography.....                               | 2                            | 5                          |
| Demonstrations and practical experiments for beginners.....          | 6                            | 10                         | Historical studies.....                                |                              |                            |
| Practical experiments for advanced students.....                     | (a)                          | 4                          | Biography of Dutch authors.....                        | 2                            | 3                          |
| Selected studies for more advanced students.....                     | 1                            | 3                          | Of the Middle ages.....                                | 2                            | 3                          |
| Department of letters and philosophy:                                |                              |                            | Of the nineteenth century.....                         | 2                            | 3                          |
| Dutch language.....  | 2                            | 25                         | Authors of the nineteenth century.....                 |                              | None.                      |
| Middle Dutch language.....   | 2                            | 11                         | Greek language and literature.....                     | 3                            | 12                         |
|  |                              |                            | The same for more advanced students.....               | 2                            | 6                          |
|  |                              |                            | Greek antiquities.....                                 | 1                            | 12                         |
|  |                              |                            | Physical geography of the Netherlands.....             | 2                            | 10                         |
|  |                              |                            | Ethnology of the Netherlands.....                      | 2                            | 9                          |
|  |                              |                            | Indies.....  |                              |                            |
|  |                              |                            | Soendane language.....                                 |                              |                            |
|  |                              |                            | Modern Persian for beginners.....                      |                              |                            |
|  |                              |                            | The same for more advanced students.....               |                              |                            |
|  |                              |                            | Turkish.....   | 2                            | 1                          |
|  |                              |                            | Origin and introduction of Islamism.....               | 3                            | 2                          |
|  |                              |                            | Javanese language and literature.....                  |                              | None.                      |
|  |                              |                            | General ethnography.....                               |                              |                            |
|  |                              |                            | Malayan language.....                                  | 12                           | 8                          |

a Unlimited.

Each State university has its own archives and a large circulating library with reading rooms.

*Promotions.*

| Studies.   | Leiden. | Utrecht. | Gronin-<br>gen. | Total.   |          |
|--|---------|----------|-----------------|----------|----------|
|  |         |          |                 | 1893-94. | 1889-90. |
| Theology .....   | 1       | 2        | 2               | 5        | 1        |
| Law .....  | 39      | 20       | 12              | 71       | 83       |
| Political economy .....  | 1       | .....    | 2               | 3        | 11       |
| Medicine .....   | 7       | 6        | 2               | 15       | 18       |
| Mathematics and physics .....  | 2       | 1        | 1               | 4        | 3        |
| Geography and oryctology .....   | .....   | .....    | 1               | 1        | .....    |
| Chemistry .....  | 1       | .....    | 1               | 2        | 4        |
| Botany and zoology .....   | 1       | 1        | .....           | 2        | .....    |
| Pharmaceutics .....  | .....   | 1        | .....           | 1        | .....    |
| Classical literature .....   | 2       | 2        | 3               | 7        | 7        |
| Dutch literature .....   | 2       | 2        | 3               | 7        | 2        |
| Knowledge of the languages and literature of the<br>East India Archipelago ..... | 1       | .....    | .....           | 1        | .....    |

The library of the University of Leyden received during the year 1893 200 new works, 1,056 copies of dissertations from France, and 3,341 essays from German, Swiss, Norwegian, and other universities. In exchange, 1,540 dissertations of the university were sent out. There were presented from the different departments of the country 126 books and 30 charts; from private parties, 581 books; from corporations and colleges, 586. Other parties donated 256 books, 63 periodicals, etc. Thirteen thousand five hundred books and 55 manuscripts were loaned from the library.

One thousand five hundred and forty-six patients were cared for in the hospital that is connected with the university; visitors in the polyclinic numbered 10,154.

The University of Leiden has, moreover, the following: Cabinet of medals and coins; anatomical cabinet; physical cabinet; chemical laboratory; inorganic specimen division; zootomic laboratory; hortus; historical laboratory; herbarium; museum of natural history; geological and mineralogical museum; physiological laboratory; pharmaceutical laboratory; pathological anatomie laboratory; ethnographic museum; observatory; museum of antiquities.

The library of the University of Utrecht received an addition of 788 new works, 307 by purchase, 243 by exchange, and 238 were presented, to say nothing of periodicals, journals, academic essays, etc. Nine thousand four hundred and eighty-seven books were loaned from this library during the year.

Two thousand two hundred and forty-four patients were treated in the medical clinic and polyclinic of the hospital connected with the university. Four hundred and nine and 2,150 patients were treated in the surgical clinic and polyclinic, respectively; over 2,400 persons in the dental division; 83 and 255 were treated by Professor Halbertsma in the gynæcological clinic and polyclinic, respectively; and 131 and 835 patients in the obstetric clinic and polyclinic, respectively.

The University of Utrecht owns besides a pathological institute, institute of anatomy, physiological laboratory, hygienic institute, phys-



ical laboratory, museum of natural history, mineralogical and geological institute, medical laboratory, pharmaceutical laboratory; botanic garden; observatory.

The additions to the library of the University of Groningen consisted of 466 new works; 354 of these were purchased and 112 presented, besides pamphlets, dissertations, etc. Visitors numbered 7,702 persons, and 8,367 books were loaned during the year.

The University of Groningen owns, moreover, a hospital, in which, on January 1, 1893, there were 112 patients under treatment, 965 having entered during the year; a cabinet of anatomy; physiological laboratory; pharmacological and hygienic laboratory; cabinet for physics; botanic garden; museum of natural history; medical laboratory; mineralogical and geological laboratory; pharmaceutical laboratory; collection of astronomical instruments; collection of engravings; and a collection of mathematical models.

University of Amsterdam, supported by the communes. By article 36, relating to superior instruction, the community of Amsterdam obtained a concession elevating the "Athenæum Illustre" to a university. This was done October 15, 1887, and it has now the same privileges as the State universities.

The college of curators consists of 2 members.

*Corps of professors.*—The senate consists of 1 rector-magnificus, 1 secretary, and 4 assessors. The professors of the faculties are distributed as follows: Of law, 7; of medicine, 14; of mathematics and natural sciences, 11; of letters and philosophy, 11; of theology, 6; public lecturers, 3; and private lecturers, 13. This gives a general total of 65.

*Students, 1893-94.*

|                             | Registered. | Tuition fees. | Income realized. |
|-----------------------------|-------------|---------------|------------------|
| For complete course.....    | 533         | \$80.4        | \$42,854         |
|                             | 113         | 40.2          | 4,543            |
|                             | 416         | None.         | .....            |
| Total, 1893-94.....         | 1,062       | .....         | 47,397           |
| Total, 1889-90.....         | a 608       | .....         | 43,004           |
| Elective studies.....       | 8           | 6             | 48               |
|                             | 24          | 12            | 288              |
|                             | 10          | 24            | 240              |
| Total, 1893-94.....         | 42          | .....         | 576              |
| Total, 1889-90.....         | 33          | .....         | 421              |
| General total, 1893-94..... | 1,104       | .....         | 47,974           |
| General total, 1889-90..... | 641         | .....         | 44,515           |

a Ten students received beneficiary scholarships from the commune.

For examination fees 246 students paid \$4,945, and two students paid \$4 each; total, \$4,953.

*Number of students to each faculty.*

|                                | Theol-<br>ogy. | Law. | Medicine. | Mathe-<br>matics<br>and<br>physics. | Letters<br>and phi-<br>losophy. | Total,<br>1893-94. | Total,<br>1889-90. |
|--------------------------------|----------------|------|-----------|-------------------------------------|---------------------------------|--------------------|--------------------|
| All lectures:                  |                |      |           |                                     |                                 |                    |                    |
| First course.....              | 46             | 30   | 83        | 36                                  | 10                              | 205                | 164                |
| Second or advanced course..... | 75             | 83   | 542       | 116                                 | 41                              | 857                | 444                |
| Total.....                     | 121            | 113  | 625       | 152                                 | 51                              | 1,062              | 608                |
| Elective studies.....          |                | 1    |           | 19                                  | 22                              | 42                 | 33                 |
| General total.....             | 121            | 114  | 625       | 171                                 | 73                              | 1,104              | 641                |
| Increase in four years.....    |                |      |           |                                     |                                 | 463                |                    |

The university received in 1889 a donation of \$16,080 from Mr. Rudolph Lehman to build a lecture hall.

*Library.*—The number of books has been largely increased. The central commission on statistics presented a collection of statistical works. A total of 3,787 works were entered in the accession book; the periodicals increased considerably also.

Thirteen thousand eight hundred and thirty-four books were loaned and consulted, and 107 manuscripts were consulted and 36 loaned. The visitors numbered 25,369, the largest number per day being 170.

The university has a pathological laboratory; hortus botanicus; geographic-geological cabinet; laboratory and collection for the study of pathological dissections; hygienic laboratory; chemical-pharmaceutical laboratory; laboratory and collection of zoological specimens; physiological laboratory; laboratory for physics; laboratory for experimental plant physiology; anatomic laboratory; museum "Urolik;" chirurgic museum; experimental chirurgic museums.

From the *Revue Internationale de l'Enseignement*, January, 1893, we learn that the medical studies in the universities of Holland will soon undergo a reform which the Government has had in contemplation for some time. Up to this date there have been four ways open to students desirous of qualifying for the medical profession, though there is but one course by which they can attain the degree of doctor of medicine. All such as desire this honor must first graduate from a gymnasium, and must have taken the university course; all others passing State examinations only can obtain a diploma in medicine, but can not assume the title of doctor. Before passing the State examinations, however, students are required to be in possession of a diploma of efficiency from a middle school (*hoogere burgherschool*) with a five years course; a diploma of promotion to the fifth year of a gymnasium, or a diploma proving they have passed a satisfactory examination in literature and mathematics.

From January 1, 1894, the two latter courses will be closed. Thus, after December, 1893, these examinations in medicine can not be taken unless the candidate has a diploma either from a gymnasium or from a

middle school certifying a five years course, but the conditions necessary for the degree of M. D. will remain as at present.

The same law regulates the qualification of foreign students in medicine. They will hereafter be admitted to the practice of medicine in the Netherlands and its colonies after having proved the validity of their foreign diplomas by an examination passed in the Dutch language. This is required in order to ascertain whether they know Hollandish well enough to understand their patients.

*Gymnasia*.—One of these institutions is in operation in each of the 29 (30 in 1889) principal cities, and of these 25 received subsidies from the State. Gymnastics and Hebrew are not obligatory, and special fees from \$12 to \$40 are charged for these branches. These schools prepare for the universities.

Total teachers, 431; 216 doctors, 49 candidates, 143 having teachers' diplomas of secondary instruction, 10 teachers with a diploma of superior instruction, in conformity with the clause of the law, and 13 teachers having a diploma of secondary instruction, in conformity with the clause of the law. There were 427 teachers employed in 1889.

The salary of a rector ranged from \$1,045 to \$2,010. The lowest salary paid to a rector of a "gymnasia" was \$1,045, but the incumbent had free residence. These teachers, however, draw an additional salary from burgher day or evening schools, higher burgher schools, middle schools for girls, or institutions for the training of teachers, wherever they may be employed. These additional salaries range from \$200 to \$400. Income from private institutions have not been taken into consideration.

| Schools.          | Students.   |             | Hearers.    |             |
|-------------------|-------------|-------------|-------------|-------------|
|                   | Jan., 1894. | Jan., 1890. | Jan., 1894. | Jan., 1890. |
| Gymnasia .....    | 2,515       | 2,502       | 16          | 27          |
| Progymnasia ..... |             | 7           |             | 5           |
| Total .....       | 2,515       | 2,509       | 16          | 32          |

There were, according to the foregoing figures, 6 students more and 16 hearers less in attendance in January, 1894, than in January, 1890.

*Examinations*.—Six hundred and forty-six candidates were examined for admission; of this number, 490 were admitted to the lowest class; 150 to higher classes, and 40 failed. At the final examination, at the close of the year, 1,733 students were transferred, 368 remained in the same class, and 6 withdrew.

[At 29 "gymnasia" (30 in 1889).]

|   | 1893-94. | 1889-90. | Difference<br>in four<br>years. |
|---|----------|----------|---------------------------------|
| <i>Examinations for admission to course of 1893-94 compared with 1889-90.</i> |          |          |                                 |
| Lowest class:   |          |          |                                 |
| Examined .....  | 622      | 645      | -23                             |
| Admitted .....  | 465      | 490      | -25                             |
| Rejected .....  | 157      | 155      | + 2                             |
| Higher classes:   |          |          |                                 |
| Examined .....  | 173      | 190      | -17                             |
| Admitted to upper class .....   | 89       | 101      | -12                             |
| Admitted to lower class .....   | 49       | 49       | .....                           |
| Rejected .....  | 35       | 40       | - 5                             |
| <i>Transition examinations to course 1894-95 and 1890-91.</i>                 |          |          |                                 |
| Examined .....  | 2,070    | 2,103    | -33                             |
| Promoted .....  | 1,687    | 1,733    | -46                             |
| Not promoted .....  | 370      | 370      | .....                           |
| Retired .....   | 13       | 6        | + 7                             |

|   | Final examinations in<br>gymnasia. |       |             |       | Examina-<br>tions by<br>State com-<br>mission. |       | Total. |       | Differ-<br>ence<br>in four<br>years. |
|---|------------------------------------|-------|-------------|-------|--|-------|--------|-------|--------------------------------------|
|   | Students.                          |       | Foreigners. |       | 1894.  | 1890. | 1894.  | 1890. |                                      |
|   | 1894.                              | 1890. | 1894.       | 1890. |  |       |        |       |                                      |
| Candidates:   |                                    |       |             |       |  |       |        |       |                                      |
| All faculties.....                                  | 5                                  | 9     | 2           | 2     | 2  | 2     | 9      | 13    | — 4                                  |
| Theology, law, letters, and philosophy.....         | 232                                | 193   | 26          | 49    | 51   | 22    | 309    | 264   | +45                                  |
| Medicine, mathematics, and natural<br>sciences..... | 85                                 | 92    | 23          | 26    | 28   | 24    | 136    | 142   | — 6                                  |
| Total.....  | 322                                | 294   | 51          | 77    | 81   | 48    | 454    | 419   | +35                                  |
| Retired.....  |                                    |       | 6           | 7     | 5  | 6     | 11     | 13    | — 2                                  |
| Certificates obtained:                              |                                    |       |             |       |  |       |        |       |                                      |
| All faculties.....                                  | 5                                  | 9     | 2           | 1     | 2  | 1     | 9      | 11    | — 2                                  |
| Theology, law, letters, and philosophy.....         | 210                                | 176   | 13          | 25    | 31   | 14    | 254    | 215   | +39                                  |
| Medicine, mathematics, and natural<br>sciences..... | 82                                 | 86    | 13          | 12    | 19   | 14    | 114    | 112   | + 2                                  |
| Total.....  | 297                                | 271   | 28          | 38    | 52   | 29    | 377    | 338   | +39                                  |
| Rejected.....                                       | 25                                 | 23    | 17          | 32    | 24   | 13    | 66     | 68    | — 2                                  |

New gymnasia buildings have been erected at Arnheim, Delft, Gonda, and Leeuwarden since 1889. The general conditions and accessories for instruction of all gymnasia are very satisfactory and constantly improving.

*Private superior instruction.*—(a) The Free University of Amsterdam has a director, the incumbent being in 1893 C. M. E. van Löben Sels. (b) The college of curators is composed of 2 members; 1 rector and 7 professors are employed as teachers. (c) The total number of students during the year amounted to 85, registered as follows: Fifty-seven in the faculty of theology; 3 in the faculty of theology and law; 3 in the faculty of theology and letters; 12 in the faculty of law; and 10 in the faculty of letters. Eighty students in 1889.

The library received various new works.

The following examinations were passed: Five with a degree of candidate of divinity; 2 with a degree of candidate in the faculty of letters; 1 first examination for doctor's degree; 11 propædæutic examinations in theology, and 1 in law.



Besides the Free University of Amsterdam, there are about 26 denominational private institutions for superior instruction in other parts of Holland, some of which receive subsidies from the State.

They are designated as follows: (1) Seminaries, (2) colleges, (3) Latin schools, (4) training schools.

The aim of most of these institutions is the training of young men for ministers in their respective churches, and for teachers of higher branches.

In 1893 there were 3,774 students enrolled in 26 of these denominational institutions. The number of teachers can not be ascertained with accuracy, but was about 317. Total students in 1889, 1,996. This shows an increase in four years of 1,778 students.

*Expenditures of the Government for higher instruction.*

|   | Teachers' salaries. |           | Trustees and officials. |          | Material and incidentals, building, etc. |          | Total.    |           |
|---|---------------------|-----------|-------------------------|----------|--|----------|-----------|-----------|
|   | 1893-94.            | 1889-90.  | 1893-94.                | 1889-90. | 1893-94.                                 | 1889-90. | 1893-94.  | 1889-90.  |
| Universities:   |                     |           |                         |          |  |          |           |           |
| Leyden .....  | \$108,517           | \$112,658 | \$55,680                | \$50,879 | \$139,103                                | \$99,545 | \$303,305 | \$263,082 |
| Utrecht .....   | 84,680              | 85,323    | 18,853                  | 16,897   | 76,118                                   | 42,384   | 179,651   | 144,604   |
| Groningen .....   | 74,110              | 71,154    | 14,905                  | 14,759   | 30,081                                   | 31,025   | 119,096   | 116,938   |
| For various expenditures for the training of students at sectarian seminaries and colleges; subsidies for gymnasia and progymnasium; Latin schools, and incidentals; subsidy to University of Amsterdam ..... |                     |           |                         |          |  |          | 230,914   | 133,424   |
| General total .....   |                     |           |                         |          |  |          | 832,967   | 658,048   |
| Increase in four years .....  |                     |           |                         |          |  |          | 174,919   |           |

*Income of the Government for universities.*

|   | 1893-94. | 1889-90. |
|---|----------|----------|
| From tuition fees of students regulated by articles 63 and 67 of the law of April 28, 1876, and by the law of June 22, 1881 ..... | \$81,735 | \$80,115 |
| Income received in conformity with article 89 of the law (examinations) .....   | 10,564   | 8,799    |
| Income from patients at the Academical Hospital in Leyden .....   | 1,698    | 2,095    |
| Total .....   | 93,997   | 91,009   |
| Increase in four years .....  | 2,988    |          |

RECAPITULATION.

|   |          |          |
|---|----------|----------|
| Total income from enumerated sources .....  | \$93,997 | \$91,009 |
| Total expenditures .....  | 832,967  | 658,048  |
| Excess of expenditure over income of universities provided for out of the general treasury of the Kingdom ..... | 738,970  | 567,039  |
| Increase in four years .....  | 171,931  |          |

*Expenditures of the University of Amsterdam, supported by the commune.*

|   | 1893-94.  | 1889-90.  |
|---|-----------|-----------|
| Salaries of trustees and professors, etc..... | \$101,991 | \$115,345 |
| Material, etc.....                            | 45,179    | 20,034    |
| Total .....                                   | 147,170   | 135,379   |
|   | 135,379   |           |
| Increase in four years.....                   | 11,791    |           |

*Income of the Communal University of Amsterdam.*

|   |          |          |
|---|----------|----------|
| Fees for tuition and examinations.....        | \$53,064 | \$46,398 |
| State subsidies .....                         | 1,266    | 1,206    |
| Subsidy by the province of North Holland..... | 4,020    | 4,020    |
| From other sources not specified.....         | 274      | 694      |
| Total .....                                   | 58,564   | 52,318   |
|   | 52,318   |          |
| Increase in four years.....                   | 6,246    |          |

## RECAPITULATION.

|  |          |          |
|--|----------|----------|
| Total income from enumerated sources.....  | \$58,564 | \$52,318 |
| Total expenditure .....  | 147,170  | 135,379  |
| Excess of expenditure over income of university provided for from the communal treasury..... | 88,606   | 83,061   |
|  | 83,061   |          |
| Increase in four years.....  | 5,545    |          |

*Expenditures of communes for "gymnasia" and "progymnasium."*

|   | 1893-94.  | 1889-90.  | 1888-89.  | Difference in five years. |
|---|-----------|-----------|-----------|---------------------------|
| Teachers' salaries and care of buildings..... | \$307,520 | \$303,362 | \$298,108 | +\$9,412                  |
| Material .....                                | 22,224    | 21,111    | 26,222    | -\$3,998                  |
| Commission of superintendents.....            | 1,253     | 1,209     | 1,173     | + 80                      |
| Subsidy.....                                  | 1,005     | 607       | 674       | + 331                     |
| Total .....                                   | 332,002   | 326,289   | 326,177   | + 5,825                   |

*Income of the communes.*

|                             | 1893-94. | 1889-90. | 1888-89. | Difference in five years. |
|-----------------------------|----------|----------|----------|---------------------------|
| State subsidy.....          | \$93,726 | \$92,936 | \$93,362 | +\$364                    |
| School fees .....           | 84,717   | 82,875   | 82,486   | + 2,231                   |
| Special funds .....         | 1,830    | 2,472    | 2,279    | - 449                     |
| Total .....                 | 180,273  | 178,283  | 178,127  | + 2,146                   |
| Balance of expenditure..... | 151,729  | 148,006  | 148,050  | 3,679                     |

The following is a review of the consolidated expenditures for higher instruction after deducting the subsidies paid by the General Government and provinces from the expenditures of the communes, and of the income from the school fees, etc., from 1878 to 1893, inclusive:

| Year.     | Income from school fees, graduation, etc. | Expenditures. | Year.       | Income from school fees, graduation, etc. | Expenditures. |
|-----------|---|---------------|-------------|---|---------------|
| 1878..... | \$142, 591                                | \$691, 214    | 1887.....   | \$210, 985                                | \$982, 144    |
| 1879..... | 155, 110                                  | 819, 738      | 1888.....   | 216, 351                                  | 1, 024, 106   |
| 1880..... | 159, 582                                  | 933, 402      | 1889.....   | 223, 452                                  | 1, 025, 573   |
| 1881..... | 185, 457                                  | 956, 651      | 1890.....   | 228, 878                                  | 1, 072, 172   |
| 1882..... | 183, 271                                  | 918, 631      | 1891.....   | 232, 083                                  | 1, 111, 240   |
| 1883..... | 181, 763                                  | 1, 026, 416   | 1892.....   | 233, 927                                  | 1, 136, 339   |
| 1884..... | 180, 975                                  | 1, 042, 821   | 1893.....   | 233, 982                                  | 1, 123, 479   |
| 1885..... | 191, 017                                  | 978, 765      |             |   |               |
| 1886..... | 204, 177                                  | 980, 026      | Total ..... | 3, 163, 601                               | 15, 872, 717  |

The excess of the total expenditure over the income, \$12,709,116, was provided for out of the respective treasuries of the communes and provinces or out of the treasury of the General Government.

*Summary of all expenditures of the General Government, of the provinces, and of the communes for public higher, secondary, and primary instruction, and of income from these schools as given in previous tables.*

## EXPENDITURES.

|  | General Government. |             | Provinces. <i>a</i> |          | Communes.   |             | Total.       |             |
|--|---------------------|-------------|---------------------|----------|-------------|-------------|--------------|-------------|
|  | 1893-94.            | 1889-90.    | 1893-94.            | 1889-90. | 1893-94.    | 1889-90.    | 1893-94.     | 1889-90.    |
| For State universities and Communal University of Amsterdam.....                                       | \$609, 271          | \$531, 777  | \$4, 020            | \$4, 020 | \$147, 170  | \$135, 379  | \$760, 461   | \$671, 176  |
| For training of theologians (Reformed and Evangelical Lutheran) <i>b</i> .....                         | 30, 577             | 28, 682     | .....               | .....    | .....       | .....       | 30, 577      | 28, 682     |
| For gymnasia, Latin schools, and cost of examinations in higher courses (articles 11 and 12), etc..... | 99, 394             | 97, 590     | .....               | .....    | 332, 002    | 326, 290    | 431, 396     | 423, 880    |
| For secondary instruction.....   | 562, 019            | 427, 630    | .....               | .....    | 627, 037    | 561, 667    | 1, 189, 056  | 989, 257    |
| For drawing academies and industrial schools and schools for deaf-mutes.....                           | 104, 364            | 51, 833     | 21, 403             | 18, 121  | 112, 825    | 95, 810     | 238, 592     | 165, 764    |
| For veterinary school.....   | 32, 982             | 34, 742     | .....               | .....    | .....       | .....       | 32, 982      | 34, 742     |
| For training schools for midwives.....   | 16, 199             | 15, 195     | .....               | .....    | .....       | .....       | 16, 199      | 15, 195     |
| For primary instruction.....   | 2, 438, 955         | 1, 868, 676 | .....               | .....    | 5, 389, 136 | 4, 598, 279 | 7, 828, 091  | 6, 466, 955 |
| Total.....   | 3, 893, 761         | 3, 056, 125 | 25, 423             | 22, 141  | 6, 608, 170 | 5, 717, 425 | 10, 527, 354 | 8, 795, 690 |

*a* The expenditures of the provinces represent sums which they paid to the communes—various sums for industrial and drawing schools, for schools for deaf-mutes, etc., and \$4,020 to the commune of Amsterdam for the university.

*b* Also to Roman Catholic and Israelite congregations.

*Summary of all expenditures of the General Government, etc.—Continued.*

INCOME. *a*

|  | General Govern-<br>ment. |          | Communes. |           | Total.                 |           |
|--|--------------------------|----------|-----------|-----------|------------------------|-----------|
|  | 1893-94.                 | 1889-90. | 1893-94.  | 1889-90.  | 1893-94.               | 1889-90.  |
| From universities (4) tuition and examination fees, including 2 subsidies to communes..... | \$93,997                 | \$91,010 | \$58,664  | \$52,319  | \$152,661              | \$143,329 |
| From gymnasia and Latin schools (tuition fees and subsidy).....                            | .....                    | .....    | 180,273   | 178,285   | 180,273                | 178,285   |
| From secondary instruction (tuition fees, for diplomas, and 2 subsidies to communes).....  | 44,417                   | 37,540   | 234,942   | 203,443   | 279,359                | 240,983   |
| From drawing academies, etc.....   | 1,204                    | .....    | 2,440     | 1,389     | 3,644                  | 1,389     |
| From veterinary schools (tuition fees).....  | 7,699                    | 9,599    | .....     | .....     | 7,699                  | 9,599     |
| From primary instruction (school and examination fees and subsidy to communes).....        | 164,744                  | 110,144  | 2,111,115 | 1,855,345 | 2,275,859              | 1,965,489 |
| Total income from sources indicated above.....   | 312,061                  | 248,293  | 2,587,434 | 2,290,781 | 2,899,495<br>2,539,074 | 2,539,074 |
| Increase in 4 years.....   | .....                    | .....    | .....     | .....     | 360,421                | .....     |

## RECAPITULATION.

|   | 1893-94.    | 1889-90.    |
|---|-------------|-------------|
| From balance of expenditure over income paid by General Government... | \$3,581,700 | \$2,807,832 |
| From balance paid by province.....                                    | 25,423      | 22,141      |
| From balance paid by communes.....                                    | 4,020,736   | 3,426,643   |
| Total.....  | 7,627,859   | 6,256,616   |
| Total expenditures.....   | 10,527,354  | 8,795,690   |

*a* Subsidies to the communes and contributions to the Government, such as the amounts withheld from salaries by the Government for the pensions of teachers, special sums contributed to the communes, etc., have been included in the foregoing table, except the subsidy for drawing and industrial schools.

After consolidating the expenditures of Government, provinces, and communes; that is, after deducting the subsidies of the Government and provinces that have been included in the expenditures of the communes for public education, the expenses incurred between communes for transferred pupils to neighboring schools in other communes, the special funds that were raised by the communes for educational purposes, the teachers' contributions toward their pensions, and the unexpended balance of subsidy funds covered back into the Government treasury, the tables of expenditure and income for the years 1889-90 and 1893-94 read as follows:

*Actual sums that were paid out of the general treasury of the Government or out of the treasury of the provinces and communes.*

## EXPENDITURES.

|   | General Govern-<br>ment. |           | Provinces. |          | Communes. |           | Total.    |           |
|---|--------------------------|-----------|------------|----------|-----------|-----------|-----------|-----------|
|   | 1893-94.                 | 1889-90.  | 1893-94.   | 1889-90. | 1893-94.  | 1889-90.  | 1893-94.  | 1889-90.  |
| For universities.....   | \$609,271                | \$531,777 | \$4,020    | \$4,020  | \$141,944 | \$130,152 | \$755,234 | \$665,949 |
| For training of theologians.....                                  | 30,576                   | 28,682    | .....      | .....    | .....     | .....     | 30,576    | 28,682    |
| For gymnasia, Latin schools.....                                  | 99,394                   | 97,590    | .....      | .....    | 238,275   | 233,352   | 337,669   | 330,942   |
| For secondary instruction, drawing academies, etc., included..... | 598,467                  | 462,852   | 21,403     | 18,121   | 652,930   | 569,338   | 1,272,800 | 1,050,311 |
| For veterinary school.....  | 32,982                   | 34,742    | .....      | .....    | .....     | .....     | 32,982    | 34,742    |
| For training schools for midwives.....                            | 16,198                   | 15,195    | .....      | .....    | .....     | .....     | 16,198    | 15,195    |
| For primary instruction.....                                      | 2,291,509                | 1,764,236 | .....      | .....    | 3,911,822 | 3,296,317 | 6,203,331 | 5,060,553 |
| Total.....  | 3,678,397                | 2,935,074 | 25,423     | 22,141   | 4,944,971 | 4,229,159 | 8,648,790 | 7,186,374 |



*Actual sums that were paid out of the general treasury of the Government, etc.—Cont'd.*

INCOME.

|   | General Government. |          | Communes. |          | Total.    |           |
|---|---------------------|----------|-----------|----------|-----------|-----------|
|   | 1893-94.            | 1889-90. | 1893-94.  | 1889-90. | 1893-94.  | 1889-90.  |
| From universities (tuition fees).....                     | \$93,997            | \$91,009 | \$53,438  | \$47,093 | \$147,435 | \$138,102 |
| From gymnasia and Latin schools (tuition fees) .....      |                     |          | 86,547    | 85,348   | 86,547    | 85,348    |
| From secondary instruction (tuition fees, diplomas) ..... | 45,621              | 37,539   | 150,450   | 116,693  | 196,071   | 154,232   |
| From veterinary school (tuition fees) ..                  | 7,699               | 9,599    |           |          | 7,699     | 9,599     |
| From primary instruction (tuition fees) .....             | 17,298              | 5,706    | 633,801   | 553,383  | 651,099   | 559,089   |
| Total .....   | 164,615             | 143,853  | 924,236   | 802,517  | 1,088,851 | 916,370   |

*a* This sum includes \$12,253 derived from examination fees and \$5,045 from tuition fees.

After subtracting the income of the various educational institutions, derived from fees for diplomas and tuition, from the actual expenditures of the Government, provinces, and communes, we obtain the following result:

|  | 1893-94.    | 1889-90.  |
|--|-------------|-----------|
| Total income.....  | \$1,088,851 | \$946,370 |
| Actual expenditures.....                                       | 8,648,791   | 7,186,374 |
| Excess of expenditure over income from enumerated sources..... | 7,559,940   | 6,240,004 |
| Increase in 4 years.....                                       | 1,319,945   |           |

These sums were paid out of the respective treasuries of the General Government, provinces, and communes.

There are no special school taxes raised in the Netherlands, and all funds for education in that country are taken from the general taxes imposed by the Government and provinces, or from the local taxes of the communes.

Communes that are unable to support the necessary number of schools send in a petition to the "Gedeputeerde Staten" (legislative body of the Kingdom), who refer it to the minister of the interior, and in case of his approbation a subsidy or loan may be granted out of the general treasury of the Government. The principal proportion of expenses for the communal schools is paid by the city treasurers from local taxes.

## CHAPTER XII.

### EDUCATION IN ITALY.

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TOPICAL OUTLINE: *Public instruction in Italy, by Dr. Egisto Rossi (with statistics for 1861-1890)—Statistics to 1892-93—Tabulated statistics of universities (1893-94 and 1894-95 compared), by Prof. Carlo F. Ferraris—The Catholic school system of Rome, extracts from an article by Cardinal Satolli—Schools of Leghorn in 1893, by the United States consul—Current educational movements, 1890-1895—Scientific and professional organizations in consular district of Rome to 1891, by the United States consul-general—Memorable dates in Italian history—Index to education in Italy, from former reports of the Commissioner of Education.*

*Area, population, and administrative divisions.*—Area, 110,623 square miles; population, 30,724,897 (estimated December 31, 1893); capital, Rome; population, 451,000 in 1893; minister of public instruction, Commendatore Guido Baccelli. The administrative divisions consist of 69 provinces, of which 60 are divided into territories and (the province of Mantua and the 8 provinces of Venetia) into districts. The territories (circondari) number 197, and there are 87 districts (distretti). These again are divided into communes (comuni), numbering 8,259 in 1881 and 8,258 in October, 1894.

*Educational summary.*—With a population of 30,724,897 in 1893 there were 11 per cent of pupils in schools below the universities. Of the total (3,106,852) about 96 per cent were in elementary schools and 3 per cent in secondary schools. In higher institutions the percentage was 0.6; in special schools, 1.1 per cent. Per capita of enrollment in elementary schools, \$4.09; per capita of population, 39 cents.

The administrative and educational authorities are brought closely together in their duties, as is shown in the statements appended. The State, province, or commune maintains public instruction; a member of the cabinet is in charge of education; the King himself appoints certain grades of instructors; the parliamentary bodies discuss and decide upon educational questions; the prefect of the province is president of the provincial school council; the syndic looks after the registration of pupils of school age, notifies parents of neglect of duty, etc.

#### PUBLIC INSTRUCTION IN ITALY.<sup>1</sup>

By DR. EGISTO ROSSI,<sup>2</sup> *Rome, Italy.*

Public instruction in Italy is regulated by law of November 13, 1859. This law has been modified, however, by royal decrees and by later laws.

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<sup>1</sup>Prepared for the International Congress of Education of the World's Columbian Exposition, Chicago, July 25-28, 1893, and printed in part in the "Addresses and Proceedings of the International Congress of Education," pp. 907-911.

<sup>2</sup>Dr. Rossi is the author of a volume on education in the United States—"La Istruzione Pubblica negli Stati Uniti, Roma, 1889," pp. 144.

The educational system<sup>1</sup> comprises three grades—elementary, secondary (including classical and technical schools), and superior. There are also infant schools which aim to give the rudiments of an education to children between 3 and 6 years of age, the latter being the earliest age at which children are admitted to the primary grades.

Private individuals of known character and capability are permitted to open infant schools and those of elementary and secondary grades, providing the localities in which the schools are to be opened are satisfactory from a hygienic point of view to the authorities.

#### INFANT SCHOOLS.

The compulsory education laws do not apply to the infant schools. These are founded by the communes, by corporations, associations, and private individuals. Many of them are autonomous in character, possessing their own revenues, which accrue from perpetual funds and donations. Other schools are supported entirely by the individuals or corporations founding them.

Almost all these schools receive subsidies from the commune, provinces, and the State, in addition to the funds received from the sources mentioned above. The children receive gratuitous instruction in the majority of infant schools; in a few a small fee is charged, the means of the family being taken into consideration in making such charges. In 1889 the communes gave \$317,532 to the infant schools, the State \$8,685.

The number of infant schools and of children attending them is enumerated in the following table:

*Infant schools.(a)*

| Year.      | Schools.                   |  |          |        | Pupils.  |
|------------|----------------------------|--|----------|--------|----------|
|            | Public.                    |  | Private. | Total. |          |
|            | Having their own revenues. | Supported by com-<br>munes or by corporate bodies. |          |        |          |
| 1862 ..... |                            |  |          | 1, 673 | 71, 054  |
| 1872 ..... |                            |  |          | 1, 099 | 130, 806 |
| 1877 ..... |                            |  |          | 1, 287 | 117, 078 |
| 1882 ..... |                            |  |          | 2, 516 | 243, 972 |
| 1886 ..... | 976                        | 513  | 650      | 2, 139 | 252, 763 |
| 1887 ..... | 1, 021                     | 532  | 671      | 2, 224 | 258, 838 |
| 1888 ..... | 1, 055                     | 539  | 624      | 2, 218 | 261, 506 |
| 1889 ..... | 1, 081                     | 537  | 602      | 2, 220 | 268, 186 |
| 1890 ..... | 1, 118                     | 596  | 582      | 2, 296 | 278, 204 |

<sup>a</sup>The Annuario Statistico Italiano, 1895, gives 2,572 infant schools in 1,776 communes, with 302,754 children and 6,488 teachers and directors, in 1893.

<sup>1</sup>Statistics to date of 1892-93 or to 1891-92 are added, in form of note, to this presentation. They are taken from the "Annuario Statistico Italiano, 1895," published by the "Ministero di Agricoltura, Industria e Commercio. Direzione generale della Statistica, Roma, 1896."

## ELEMENTARY SCHOOLS.

The elementary schools are in charge of the communes and are under the supervision of their administrative officers. In conformity with the law they are gratuitous and are maintained by subsidies from provincial and communal funds. In accordance with special laws, the State aids in such support by subsidies for construction and repairs and for teachers' salaries. The State is authorized to favor communes which are too impoverished to construct school buildings by granting subsidies for such buildings, or by extending other aid, either by loan or gift, if there is any special reason for so doing. If any loans have been made the State undertakes to reimburse the institution loaning said fund, adding thereto a nominal interest.

The elementary schools are frequented by children from 6 to 12 years of age. These schools are divided into two grades; the lower grade, which extends through three years, is subdivided into two classes, equivalent to a two-years course. The course of study includes writing, elementary arithmetic and the metric system, history of Italy, elements of geography, natural history and physics, civic education, and gymnastics.

All the communes are required to establish lower grade elementary schools; communes of 4,000 inhabitants and over are required to establish those of the higher grade. In these larger communes there must also be institutions of a secondary grade.

By law of July 15, 1877, which carried out the provisions of the law of 1859, parents were obliged to send their children between 6 and 9 years of age to the elementary grades, unless they could show cause for instruction at home or in private schools. This compulsory act could be carried on beyond the ninth year if the pupil, when called up for examination at close of the course, did not indicate satisfactory knowledge of the studies in the lower grade elementary schools.

By decree of February 16, 1888, pupils of both public and private schools, and those who obtain home instruction, must receive certificates of having passed such final examinations before they can be placed on the registration list for the holding of political or administrative office. Parents and guardians who fail to conform to the above regulations are subject to censure from the syndic, and, in case of further noncompliance, they are subject to a fine of not less than \$2.50.

By law of July 15, 1877, which went into force in October, 1877, each commune is required to have a certain number of teachers trained for duty in these lower grade elementary schools. This number is to be proportionate to the population.



The following table indicates the number of communes from 1861-62 to 1889-90 which have fulfilled the requirements of the law of July 15, 1877, as far as the number of schools, pupils, and teachers is concerned:

| Year.   | Popu-<br>lation. | Communes having compulsory<br>education. | Teachers, assistant<br>teachers,<br>and substitute teachers. | Class rooms.    |                  |        | Enrollment.                    |                                 |                 | Ratio.                                      |                                    |   |                                   |                                    |
|---------|------------------|--|--|-----------------|------------------|--------|--------------------------------|---------------------------------|-----------------|---|------------------------------------|---|-----------------------------------|------------------------------------|
|         |                  |  |  | Lower<br>grade. | Higher<br>grade. | Total. | In lower elementary<br>grades. | In higher elementary<br>grades. | Total. <i>a</i> | Number of<br>schools to 100<br>inhabitants. |                                    | Number en-<br>rolled to 100<br>inhabitants. |                                   |                                    |
|         |                  |  |  |                 |                  |        |                                |                                 |                 | In lower<br>elementary<br>grades.           | In higher<br>elementary<br>grades. | Total.                                      | In lower<br>elementary<br>grades. | In higher<br>elementary<br>grades. |
| 1861-62 | 21,777,334       | 21,050                                   | 21,353   | 21,353          | 21,353           | 21,353 | 885,152                        | 0.98                            | 4.06            |   |                                    |   |                                   |                                    |
| 1865-66 | 21,777,334       | 26,019                                   | 25,682   | 25,682          | 25,682           | 25,682 | 1,098,721                      | 1.18                            | 5.04            |   |                                    |   |                                   |                                    |
| 1870-71 | 26,801,154       | 33,290                                   | 32,782   | 32,782          | 32,782           | 32,782 | 1,458,884                      | 1.22                            | 5.44            |   |                                    |   |                                   |                                    |
| 1875-76 | 26,801,154       | 37,623                                   | 38,255   | 38,255          | 38,255           | 38,255 | 1,722,669                      | 1.43                            | 6.43            |   |                                    |   |                                   |                                    |
| 1880-81 | 28,459,628       | 7,804                                    | 42,510   | 42,510          | 42,510           | 42,510 | 1,928,706                      | 1.49                            | 6.78            |   |                                    |   |                                   |                                    |
| 1885-86 | 29,639,785       | 8,178                                    | 47,026   | 41,023          | 5,050            | 46,073 | 1,949,038                      | 1.38                            | 6.99            |   |                                    |   |                                   |                                    |
| 1886-87 | 29,942,142       | 8,178                                    | 47,449   | 41,448          | 5,137            | 46,585 | 1,970,552                      | 1.39                            | 7.03            |   |                                    |   |                                   |                                    |
| 1887-88 | 30,266,056       | 8,178                                    | 47,998   | 41,913          | 5,334            | 47,247 | 1,985,436                      | 1.38                            | 7.02            |   |                                    |   |                                   |                                    |
| 1888-89 | 30,565,188       | 8,226                                    | 48,569   | 42,305          | 5,267            | 47,572 | 2,002,957                      | 1.39                            | 7.02            |   |                                    |   |                                   |                                    |
| 1889-90 | 30,946,317       | 8,253                                    | 49,366   | 42,837          | 5,361            | 48,198 | 2,047,671                      | 1.39                            | 7.07            |   |                                    |   |                                   |                                    |

*a* In 1892-93 (vide *Annuario Statistico Italiano*, 1895) there were 2,487,803 pupils in public and private schools of an elementary grade (boys, 1,311,018; girls, 1,176,785); class rooms, 58,277; teachers, 60,380.

The ratio of schools, teachers, and pupils to population is based in the years 1861-62 to 1865-66 upon the census of December 31, 1861; that of 1870-71 to 1875-76, upon the census of December 31, 1871, and that of 1880-81, upon the census of December 31, 1881. The reports presented for the other years mentioned in the table are based upon an estimate of population made annually in the month of December following the opening of the schools. The estimate of population is formulated upon the basis of December, 1881, adding to it the births in each year and subtracting the deaths. No attention being paid to the movement of population, i. e., the immigration and emigration, such a determination is liable to error, and such errors increase in proportion to the time that has elapsed from the date of the original census. The movement from one commune to another exercises but little influence upon the territorial department to which it belongs, and less upon the total for the Kingdom. On the other hand, the emigration to foreign shores must not be overlooked in so far as it appertains to the whole Kingdom. It is fairly easy to take note of the emigration, but the means approximating the immigration and the return of Italians to their native country is less easy. The estimates relative to the movement of population, as, for example, the estimates of mortality, by province and by territory (*circondari*), and also in the largest cities, taken one by one, necessitate that calculations appertaining to the

population of these subdivisions be made at least approximately, and yet the population is calculated on the supposition that the increase from year to year is in the same proportion as the augmentation during the period between the last two censuses.

Proceeding, then, by this method it is found that the population on December 31, 1889, would be 29,969,654, while if the excess of the births over the deaths were added between the dates 1882-1889 to the population of 1881, the result would be 30,946,317, which exceeds by more than 1,000,000 the number estimated by the first method.

The increase in the number of elementary schools and in enrollment was more rapid during the period which followed the formation of the Kingdom of Italy than it is to-day.

The ratio of increase is as follows:

| Period.                  | Increase of pupils to 100 inhabitants. | Increase of pupils in respect to population. |
|--------------------------|--|--|
| 1861-62 to 1867-68 ..... | 5.32                                   | 4.45   |
| 1867-68 to 1871-72 ..... | 3.30                                   | 2.71   |
| 1871-72 to 1889-90 ..... | 2.06                                   | 1.23   |

There are also elementary, evening, holiday, and adult schools supplementary to the public day schools. It is not considered obligatory upon the communes to support many of these schools; the number is quite large, however, and most of them receive subsidies. The number of the evening and holiday schools, with their enrollment, is here presented for certain years between 1861-62 and 1889-90:

*Evening and holiday schools. (a)*

| Year.         | Evening schools. |           | Holiday schools. |           |
|---------------|------------------|-----------|------------------|-----------|
|               | Class rooms.     | Enrolled. | Class rooms.     | Enrolled. |
| 1861-62 ..... | 2,803            | 108,170   | 495              | 16,031    |
| 1871-72 ..... | 9,809            | 375,947   | 4,743            | 154,585   |
| 1877-78 ..... | 10,577           | 432,801   | 5,792            | 195,631   |
| 1882-83 ..... | 6,787            | 278,377   | 3,831            | 120,110   |
| 1887-88 ..... | 5,622            | 205,160   | 3,965            | 113,188   |
| 1888-89 ..... | 5,191            | 191,600   | 3,625            | 100,150   |
| 1889-90 ..... | 5,265            | 196,846   | 3,574            | 100,002   |

*a* Statistics of evening schools in 1892-93: Class rooms, 3,492; teachers, 3,639; pupils, 128,780 (boys, 124,789; girls, 3,991). Holiday schools: Class rooms, 2,454; teachers, 2,507; pupils, 64,580 (boys, 15,086; girls, 49,494).

The increase in the number of schools and pupils is of significance as tending to account for the decrease of illiteracy shown by the three successive censuses as that illiteracy bears upon the total population, the various classes, and the age. At least, it bears upon the number of recruits and illiterate married people to every 100

examined and upon the number of married men and married women respectively.

| Year.      | Native recruits who could not read to 100 examined. | Married men and women who could not write their names. |        | Illiteracy to 100 inhabitants. |         |                       |         |
|------------|---|--|--------|--------------------------------|---------|-----------------------|---------|
|            |   |  |        | From 6 years upward.           |         | From 20 years upward. |         |
|            |   | Men.   | Women. | Male.                          | Female. | Male.                 | Female. |
| 1861 ..... |   |  |        | 68                             | 81      | 65                    | 82      |
| 1866 ..... | 64  | 60   | 79     |                                |         |                       |         |
| 1871 ..... | 57  | 58   | 77     | 62                             | 76      | 60                    | 77      |
| 1876 ..... | 52  | 52   | 73     |                                |         |                       |         |
| 1881 ..... | 48  | 48   | 70     | 55                             | 69      | 54                    | 73      |
| 1884 ..... | 47  | 45   | 67     |                                |         |                       |         |
| 1885 ..... | 46  | 44   | 66     |                                |         |                       |         |
| 1886 ..... | 44  | 43   | 63     |                                |         |                       |         |
| 1887 ..... | 45  | 43   | 63     |                                |         |                       |         |
| 1888 ..... | 43  | 42   | 62     |                                |         |                       |         |
| 1889 ..... | 42  | 41   | 60     |                                |         |                       |         |
| 1890 ..... |   | 41   | 59     |                                |         |                       |         |

#### NORMAL SCHOOLS.

The normal schools serve as preparatory schools for teachers of the elementary grades. The State provides the funds for the teaching force and for scientific apparatus. The remaining expenditures and those for the "Convitti" (establishments where pupils are boarded and lodged) are paid by the provinces and communes in which the normals are located.

There are still other schools of this character for the training of teachers which are maintained exclusively by provinces and communes, by corporations or individuals, while some receive State subsidies.

The normal schools are of higher and lower grades for men and for women. The lower-grade normal schools have only the power to confer teachers' diplomas for the three lower classes of the lower-grade elementary schools. The higher-grade normals, on the contrary, confer the diploma required to teach in the elementary schools of both higher and lower grade. In the normal schools for women a certificate or diploma is also conferred, which permits its holder to become a teacher in or directress of an infant school.

Instruction in the normal schools is gratuitous. The course is one of two years in the lower-grade normals, and is preceded by a preparatory course of three years.

An examination for admission is required of those who wish to enter the normal schools. Each normal has a practice school attached, in which the pupil can obtain practice in teaching. The normals for women have also an infant school attached, which is divided into three sections.

Persons desiring to obtain a teacher's position in the elementary schools are appointed by the communes (which pay them), after competing for such position in a competitive examination before the provincial school council. This council, after examining as to their qualifications,

presents the list of persons eligible to such positions, and the communal council has the duty to select and appoint the teachers. To determine the minimum legal salary for teachers, the elementary schools are divided into two categories, urban and rural, and each of these categories into three classes, in accordance with the wealth and population of the commune. The minimum legal stipendia, according to law of April 11, 1886, are as follows:

|                    | City schools. |        |        |        | Rural schools. |        |        |        |
|--------------------|---------------|--------|--------|--------|----------------|--------|--------|--------|
|                    | Higher.       |        | Lower. |        | Higher.        |        | Lower. |        |
|                    | Men.          | Women. | Men.   | Women. | Men.           | Women. | Men.   | Women. |
| First class .....  | \$254         | \$203  | \$193  | \$152  | \$173          | \$139  | \$152  | \$123  |
| Second class ..... | 213           | 170    | 183    | 146    | 164            | 131    | 144    | 115    |
| Third class .....  | 193           | 152    | 173    | 139    | 152            | 123    | 135    | 103    |

The stipends are augmented one-tenth for every six years of service in the same commune until the salary has been increased four times. The following table indicates the number of normal schools and pupils for certain years commencing with 1861-62:

*Normal schools. (a)*

| Year.         | Schools.            |                |        | Pupils enrolled.       |                   |        |
|---------------|---------------------|----------------|--------|------------------------|-------------------|--------|
|               | Government schools. | Other schools. | Total. | In Government schools. | In other schools. | Total. |
| 1861-62 ..... |                     |                | 86     |                        |                   | 3,742  |
| 1871-72 ..... |                     |                | 115    |                        |                   | 6,130  |
| 1875-76 ..... |                     |                | 101    |                        |                   | 6,775  |
| 1881-82 ..... |                     |                | 121    |                        |                   | 8,865  |
| 1885-86 ..... | 80                  | 53             | 133    | 7,243                  | 3,299             | 10,542 |
| 1886-87 ..... | 82                  | 52             | 134    | 7,808                  | 3,252             | 11,060 |
| 1887-88 ..... | 83                  | 54             | 137    |                        |                   | 11,694 |
| 1888-89 ..... | 95                  | 42             | 137    | 10,032                 | 2,804             | 12,856 |
| 1889-90 ..... | 98                  | 43             | 141    | 12,204                 | 2,980             | 15,184 |

*a* In 1892-93 there were 148 normal schools (100 Government), 1,534 teachers (1,034 in Government normal schools), 18,677 pupils (14,493 in Government schools). Of the pupils 1,703 were men, 16,974 women.

There are other institutes auxiliary or complementary to those for elementary instruction. Among the first-mentioned are two "convitti" (establishments where pupils are boarded and lodged and which have elementary schools attached) for the orphans of elementary teachers, and the institutions for the blind and deaf-mutes; among the second are comprised the "convitti," the educational institutions for girls and the two higher-grade normals for girls.

The expenditures for the elementary, evening, and holiday schools, for the normals, and for the other institutions noted above, infant schools excluded, however, are as follows: In 1888-89 the provinces expended \$153,892; the communes, \$10,866,756. In 1890-91 the State expended \$1,648,452.



## SECONDARY CLASSICAL AND TECHNICAL INSTRUCTION.

The aim of secondary classical instruction is to train young men in the studies requisite for acquiring the literary and philosophical knowledge which entitles them to enter upon special studies leading to the academic grades of a university. These branches of instruction are imparted in the "ginnasio" (lower grade classical school) in a five-years term, and in the "liceo" (higher grade classical school) in a three-years term. In order to be admitted to Class I of a "ginnasio" the student is required to pass an entrance examination in the branches of the higher elementary grade, and in order to be admitted to the first year of a "liceo" it is necessary to possess a gymnasial license (*licenza ginnasiale*), while the license of a "liceo" (*licenza liceale*) is required for admittance to a university course. The "ginnasi" are supposed to be supported by the communes, but in some provinces the State maintains them, in accordance with special laws.

The "licei" are supported by the State, as far as the expenditures for teachers and scientific material are concerned; the expenditures for the buildings and furniture are borne by the communes.

The State, either by law or by special agreement with the communes or other corporations, cooperates in maintaining the "ginnasi" and nongovernmental "licei." The communes, corporate bodies, and private individuals support similar institutions.

The State, moreover, maintains the "convitti" annexed to the governmental "ginnasi" and "licei," and, by law or special agreement, it also subsidizes other "convitti," whose maintenance would naturally belong to a province, commune, or to a corporate body or association. The aim of technical-professional instruction is to impart to young men who are ambitious to enter upon a specified career in the public service, i. e., in industrial, commercial, and skilled agricultural pursuits, such general and special knowledge as is required for these pursuits.

This knowledge is acquired and taught in technical schools, technical institutes, and in the institutes for the mercantile marine.

The course of instruction in the technical schools lasts three years, at the end of which a diploma is given to the successful candidates; this diploma is required for admission to a technical institute or to an institute for the mercantile-marine service. In the technical institute the instruction is divided, according to the profession to be pursued, into 5 sections, namely, physico-mathematics, land surveying, agriculture, commerce and trade, and industrial pursuits.

The courses last four years, and are divided into two biennial periods; one common to all sections, and one a special course for each section. In the institutes for the mercantile-marine service the instruction is divided into 6 sections, viz, as captains for the coast service, naval constructors of the second class, and machinists of the second class, a two-years course; captain for long-distance courses and naval con-

structors of the first class, a three-years course; and machinists of the first class a four-years course.

The diploma of the physico-mathematical section entitles, as does the "licenza liceale," to admission into the faculty for physical, mathematical, and natural sciences of a university.

The following table presents the number of institutes in which secondary classical and technical instruction is given, and the number of students enrolled:

*Institutes for secondary classical and technical instruction. (a)*

#### INSTITUTES.

| Year.        | Ginnasi. |                         | Licei. |                         | Technical schools. |                         | Technical institutes. |                     | Institutes of the merchant marine. |                     |
|--------------|----------|-------------------------|--------|-------------------------|--------------------|-------------------------|-----------------------|---------------------|------------------------------------|---------------------|
|              | State.   | Public and private. (b) | State. | Public and private. (b) | State.             | Public and private. (b) | State.                | Public and private. | State.                             | Public and private. |
| 1861-62..... | 93       | .....                   | 67     | .....                   | .....              | .....                   | 16                    | .....               | 5                                  | .....               |
| 1865-66..... | 99       | .....                   | 69     | .....                   | 46                 | .....                   | 52                    | .....               | 14                                 | .....               |
| 1870-71..... | 103      | .....                   | 78     | .....                   | 55                 | .....                   | 65                    | .....               | 25                                 | .....               |
| 1875-76..... | 104      | .....                   | 80     | .....                   | 63                 | .....                   | 73                    | .....               | 30                                 | .....               |
| 1880-81..... | 113      | 588                     | 83     | 215                     | 63                 | 320                     | 40                    | 39                  | 21                                 | 5                   |
| 1885-86..... | 130      | 597                     | 97     | 229                     | 107                | 313                     | 46                    | 27                  | 20                                 | 4                   |
| 1886-87..... | 131      | 604                     | 99     | 227                     | 123                | 296                     | 49                    | 25                  | 19                                 | 4                   |
| 1887-88..... | 148      | 580                     | 104    | 216                     | 143                | 266                     | 51                    | 19                  | 18                                 | 3                   |
| 1888-89..... | 154      | 560                     | 108    | 201                     | 161                | 246                     | 54                    | 21                  | 19                                 | 2                   |
| 1889-90..... | 177      | 546                     | 112    | 203                     | 184                | 209                     | 54                    | 19                  | 19                                 | 2                   |

#### STUDENTS ENROLLED.

| Year.        | In the ginnasi. |                     | In the licei. |                     | In technical schools. |                     | In technical institutes. |                     | In institutes of the merchant marine. |                     |
|--------------|-----------------|---------------------|---------------|---------------------|-----------------------|---------------------|--------------------------|---------------------|---------------------------------------|---------------------|
|              | State.          | Public and private. | State.        | Public and private. | State.                | Public and private. | State.                   | Public and private. | State.                                | Public and private. |
| 1861-62..... | 7,221           | .....               | 3,005         | .....               | 2,200                 | .....               | 1,231                    | .....               | 265                                   | .....               |
| 1865-66..... | 8,004           | .....               | 3,280         | .....               | 4,040                 | .....               | 3,438                    | .....               | 536                                   | .....               |
| 1870-71..... | 8,277           | .....               | 3,645         | .....               | 5,631                 | .....               | 4,798                    | .....               | 870                                   | .....               |
| 1875-76..... | 9,772           | .....               | 5,522         | .....               | 6,500                 | .....               | 5,829                    | .....               | 965                                   | .....               |
| 1880-81..... | 12,876          | 28,248              | 5,989         | 5,144               | 6,852                 | 15,268              | 4,696                    | 2,182               | 734                                   | 82                  |
| 1885-86..... | 15,702          | 31,528              | 7,219         | 6,477               | 10,810                | 15,814              | 5,193                    | 1,813               | 641                                   | 54                  |
| 1886-87..... | 16,796          | 32,284              | 7,523         | 6,342               | 12,702                | 15,438              | 4,836                    | 1,395               | 646                                   | 50                  |
| 1887-88..... | 18,192          | 31,940              | 7,620         | 6,108               | 14,652                | 14,284              | 4,599                    | 1,089               | 651                                   | 49                  |
| 1888-89..... | 19,815          | 31,471              | 8,138         | 6,706               | 16,700                | 13,504              | 4,937                    | 1,066               | 781                                   | 14                  |
| 1889-90..... | 23,225          | 31,007              | 8,396         | 5,607               | 19,219                | 12,531              | 5,904                    | 1,123               | 1,008                                 | 26                  |

*a* In 1891-92 there were 735 "ginnasi" (178 State, 557 public or private) with 4,429 professors; students 57,525 (in State ginnasi 25,380; public or private 32,145). The "licei" numbered 321 (State 113, others 208); professors 1,853; students 15,713 (State 9,371, in other licei 6,342). The technical schools numbered 399 (State 184, others 215); professors 2,893; students 34,244 (State 21,411, others 12,833.) Technical institutes 74 (State 54); professors 1,315; students 8,647 (in State institutes 7,203). There were 21 naval institutes—"istituti nautici" training for the maritime service—(of these 19 Government) with 179 professors; students 1,320 (in Government 1,301).

*b* Until the close of 1879-80 there were no statistics published for nongovernment institutes.

The maintenance of the technical schools is imposed upon the communes where they are established. The State pays half of the teachers' expenses, however. In some cases, in accordance with special laws, technical schools are entirely in charge of the State.

The expenditures for the technical institutes and for those of the mercantile marine are borne in part by the State, which pays half of the

expenses for the teachers and other employees, and in part by the provinces and communes.

The expenditures for buildings and nonscientific material are furnished by the communes where the institutes are situated.

The expenditures for classical and technical schools and for the "convitti" for boys were accredited as follows—to the State, communes, and provinces—during the years 1888-89 and 1890-91:

|                           |             |
|---------------------------|-------------|
| Provinces (1888-89) ..... | \$447, 128  |
| Communes (1888-89) .....  | 1, 396, 698 |
| State (1890-91) .....     | 2, 389, 207 |

Still another class of instruction is imparted in institutes and special schools, such as practical schools of agriculture, agrarian schools, industrial schools, schools of art and trade, and professional schools. The expenditures are paid in part by the State, which, through subsidies given to the ministry of agriculture, industry, and commerce, in accordance with special laws to that effect, cooperates with the provinces, communes, and other corporate bodies. In order to secure admission to one of these schools it is necessary to have successfully finished the elementary courses or otherwise to have passed an examination for admission.

During the school years 1888-89 and 1890-91 the expenditures for this class of schools were distributed as follows:

|                           |            |
|---------------------------|------------|
| Provinces (1888-89) ..... | \$125, 677 |
| Communes (1888-89) .....  | 325, 498   |
| State (1890-91) .....     | 439, 655   |

#### SUPERIOR INSTRUCTION.

The highest grade of education is furnished in the universities, the superior institutes, and in superior special schools. The "Istituti Superiori" include the schools for engineers, the veterinary schools, the literary and scientific academy, the higher normal school for instruction in literature, and the superior institute for the perfecting of studies in Florence with its university faculties.

The universities comprise in general four faculties—law; philosophy and letters; physical, mathematical, and natural sciences; and medicine and surgery.

In some universities the schools of pharmacy and veterinary schools are annexed to the faculty of medicine and surgery. Not all universities have four faculties. The degree of doctor (Laurea) is conferred in each faculty at the close of the course. In the higher institutes there are faculties or sections of faculties where doctors' degrees and diplomas are conferred at the close of the course.

In the special schools diplomas are given for the different subjects taught there.

The special schools are the superior commercial schools, whose purpose it is to prepare young men for the management of banking and

commercial institutions, or for the career of consular agents in foreign countries, or for the position of instructors in the science of economics in technical institutes; the superior agricultural schools, which prepare teachers of agricultural sciences and to promote agricultural interests by means of experimental research; the superior naval school, for the training of naval and hydrographic engineers and naval constructors; the institute of forestry, for training persons as forest inspectors; and the industrial museum, for training as mechanical engineers (*ingegneri-industriale*), chemistry, and in special branches of mechanics and physics.

The expenditures for universities and superior institutes are in charge of the State and are included in the budget of the ministry of public instruction. The revenues and property of these institutions aid in their maintenance, and the fund is added to that administered by the State.

Some provinces cooperate, by means of special contracts with the State in the payment of expenditures for the increase of scientific apparatus, for the annexed schools, for the laboratories, and collections of the universities which are located in the respective provinces or communes. There are 17 Government universities. Four are called "free," because they are maintained by the provinces and communes where they are situated. The superior institutes are under Government control, and are 11 in number.

The superior special schools are also 11 in number, and are maintained by the State (the fund being included in the budget of the ministry of agriculture, industry, and commerce) in conjunction with the provinces and communes where they are situated.

The two superior institutes for the education of women are dependent on the ministry of public instruction, to the accounts of which the expenditures are charged. The following table gives a survey of the universities, the superior institutes, and the superior special schools, with a summary of the number of students enrolled in said institutes, commencing with the year 1866-67:

*Index of universities, superior institutes, and special superior schools.*

| Universities. | Superior institutes. |   |                        | Superior special schools. |   |                        |
|---------------|----------------------|---|------------------------|---------------------------|---|------------------------|
|               | Numerical order.     | Place.  | Year of establishment. | Numerical order.          | Place.                                      | Year of establishment. |
| A.—State.     |                      |   |                        |                           |   |                        |
| 1. Bologna.   | 1                    | Bologna—School of Applied Sciences for Engineers.                           | 1877                   | 1                         | Bari—Superior School of Commerce.           | 1887                   |
| 2. Cagliari.  |                      |   |                        |                           |   |                        |
| 3. Catania.   | 2                    | Florence—Institute for superior practical studies and professional studies. | 1859                   | 2                         | Florence—School of Social Science. <i>a</i> | 1875                   |
| 4. Genoa.     |                      |   |                        |                           |   |                        |
| 5. Macerata.  |                      |   |                        |                           |   |                        |

*a* Founded by private initiative.



*Index of universities, superior institutes, and special superior schools—Continued.*

| Universities.   | Superior institutes. |  |                        | Superior special schools. |   |                        |
|-----------------|----------------------|--|------------------------|---------------------------|---|------------------------|
|                 | Numerical order.     | Place.   | Year of establishment. | Numerical order.          | Place.  | Year of establishment. |
| A.—State—C't'd. |                      |  |                        |                           |   |                        |
| 6. Messina.     | 3                    | Milan—Scientific Literary Institute.             | 1859                   | 3                         | Florence—Superior Institute for the Education of Women. | 1882                   |
| 7. Modena.      |                      |  |                        |                           |   |                        |
| 8. Naples.      | 4                    | Milan—Superior Technical Institute.              | 1859                   | 4                         | Genoa—Superior School of Navigation.                    | 1870                   |
| 9. Padua.       |                      |  |                        |                           |   |                        |
| 10. Palermo.    | 5                    | Milan—Superior School for Veterinary Medicine.   | 1859                   | 5                         | Genoa—Superior School of Commerce.                      | 1887                   |
| 11. Parma.      |                      |  |                        |                           |   |                        |
| 12. Pavia.      | 6                    | Naples—School of Applied Sciences for Engineers. | 1810                   | 6                         | Milan—Superior School of Agriculture.                   | 1870                   |
| 13. Pisa.       |                      |  |                        |                           |   |                        |
| 14. Rome.       | 7                    | Naples—Superior School of Veterinary Medicine.   | 1856                   | 7                         | Palermo—Superior School of Sulphur Mining. <sup>a</sup> | 1872                   |
| 15. Sassari.    |                      |  |                        |                           |   |                        |
| 16. Siena.      | 8                    | Pisa—Superior Normal School.                     | 1846                   | 8                         | Portici—Superior School of Agriculture.                 | 1872                   |
| 17. Turin.      | 9                    | Rome—School of Applied Sciences for Engineers.   | 1873                   | 9                         | Rome—Superior Institute for the Education of Women.     | 1882                   |
| B.—Free.        | 10                   | Turin—School of Applied Sciences for Engineers.  | 1859                   | 10                        | Turin—Italian Museum of Industry.                       | 1862                   |
| 1. Camerino.    |                      |  |                        |                           |   |                        |
| 2. Ferrara.     | 11                   | Turin—Superior School of Veterinary Medicine.    | 1796                   | 11                        | Vallombrosa—Institute of Forestry.                      | 1869                   |
| 3. Perugia.     |                      |  |                        |                           |   |                        |
| 4. Urbino.      |                      |  |                        | 12                        | Venice—Superior School of Commerce.                     | 1868                   |

<sup>a</sup> Was closed during school year 1886-87.*Universities, superior institutes, and special schools. (a)*

| Year.        | Number of students enrolled (hearsers included). |                    |                      |                           | Year.       | Number of students enrolled (hearsers included). |                    |                      |                           |
|--------------|--|--------------------|----------------------|---------------------------|-------------|--|--------------------|----------------------|---------------------------|
|              | Universities supported by State.                 | Free universities. | Superior institutes. | Superior special schools. |             | Universities supported by State.                 | Free universities. | Superior institutes. | Superior special schools. |
| 1866-67..... | 10,098   | 283                | 682                  | .....                     | 1878-79.... | 9,814  | 214                | 1,033                | 689                       |
| 1867-68..... | 11,274   | 299                | 841                  | 93                        | 1879-80.... | 10,335   | 238                | 1,144                | 622                       |
| 1868-69..... | 11,239   | 295                | 988                  | 306                       | 1880-81.... | 11,117   | 269                | 1,235                | 730                       |
| 1869-70..... | 11,379   | 278                | 1,084                | 367                       | 1881-82.... | 11,889   | 302                | 1,375                | 397                       |
| 1870-71..... | 11,340   | 282                | 1,148                | 408                       | 1882-83.... | 12,596   | 281                | 1,532                | 434                       |
| 1871-72..... | 11,694   | 303                | 1,181                | 509                       | 1883-84.... | 13,333   | 243                | 1,544                | 513                       |
| 1872-73..... | 11,378   | 306                | 1,143                | 499                       | 1884-85.... | 13,958   | 271                | 1,715                | 547                       |
| 1873-74..... | 11,205   | 277                | 1,021                | 537                       | 1885-86.... | 14,500   | 317                | 1,858                | 515                       |
| 1874-75..... | 10,026   | 264                | 1,108                | 574                       | 1886-87.... | 15,196   | 345                | 1,961                | 701                       |
| 1875-76..... | 8,657  | 237                | 1,265                | 673                       | 1887-88.... | 15,503   | 371                | 1,959                | 789                       |
| 1876-77..... | 8,529  | 219                | 1,160                | 602                       | 1888-89.... | 15,950   | 372                | 1,955                | 1,006                     |
| 1877-78..... | 9,161  | 203                | 1,085                | 628                       | 1889-90.... | 16,512   | 410                | 1,996                | 879                       |

<sup>a</sup> In 1891-92 there were 17,347 students and hearers and 1,493 professors in State universities; in free (libera) universities, 445 students and 79 professors. In the superior institutes, 2,033 students and 233 professors; in superior special schools, 860 students and 158 professors.

The expenditures borne by the State for universities and other institutes and special schools amounted to \$2,077,959 for the school year 1890-91, which sum was included in the budget of the minister of public instruction, and \$112,905 in the budget of the ministry of agriculture, industry, and commerce.

The amounts contributed by the provinces and communes to the funds of universities, superior institutes, and superior special schools are added to the provincial and communal budgets. This fund is separate from the amounts furnished by the associations or corporate bodies for the general increase and progress of studies. To this latter amount the provinces furnished \$457,811 and the communes \$829,190 for the year 1888-89.

But the State revenues for this year indicate that the provinces and communes will only cooperate to the extent of \$152,536 in the maintenance of universities and other institutions administered by the State. The superior special schools, as has been mentioned before, are founded and maintained conjointly by the State, the provinces, and the communes, and are managed by local commissions, which include in their membership representatives from corporate bodies which aid in the maintenance of said institutions.

As appendix to this article, we add the latest statistics of universities, presented by Prof. Carlo F. Ferraris, and taken from the *Revue Internationale de l'Enseignement* for October, 1895.

*Enrollment in higher institutions in 1894-95 compared with 1893-94.*

| Name, etc.                             | Faculties, and schools of law, of pharmacy, and of obstetrics. | Schools of application annexed for the engineers. | Total. | Veterinary schools, independent or annexed to universities. | Schools of agriculture annexed. | General total for 1894-95. | Total for 1893-94. | Increase (+) or decrease (—). |
|--|--|---|--------|---|---------------------------------|----------------------------|--------------------|-------------------------------|
| Royal universities having 4 faculties: |  |   |        |   |                                 |                            |                    |                               |
| Naples.....                            | 5,040  | 230   | 5,270  | 163   | .....                           | 5,433                      | 5,205              | + 228                         |
| Turin.....                             | 2,305  | 266   | 2,671  | 91  | .....                           | 2,762                      | 2,609              | + 153                         |
| Rome.....                              | 1,913  | 143   | 2,059  | .....   | .....                           | 2,059                      | 1,752              | + 307                         |
| Padua.....                             | 1,475  | 128   | 1,603  | .....   | .....                           | 1,603                      | 1,426              | + 177                         |
| Bologna.....                           | 1,244  | 134   | 1,358  | 99  | .....                           | 1,457                      | 1,384              | + 73                          |
| Palermo.....                           | 1,287  | 82  | 1,369  | .....   | .....                           | 1,369                      | 1,488              | — 119                         |
| Pavia.....                             | 1,246  | 26  | 1,272  | .....   | .....                           | 1,272                      | 1,223              | + 49                          |
| Genoa.....                             | 1,003  | 7   | 1,010  | .....   | .....                           | 1,010                      | 990                | + 20                          |
| Pisa.....                              | 769  | 3   | 772    | 28  | 172                             | 972                        | 900                | + 72                          |
| Catania.....                           | 806  | .....   | 806    | .....   | .....                           | 806                        | 748                | + 58                          |
| Messina.....                           | 502  | .....   | 502    | .....   | .....                           | 502                        | 456                | + 46                          |
| Total.....                             | 17,573   | 1,119   | 18,692 | 381   | 172                             | 19,245                     | 18,181             | + 1,064                       |
| Royal universities having 3 faculties: |  |   |        |   |                                 |                            |                    |                               |
| Modena.....                            | 384  | .....   | 384    | 28  | .....                           | 412                        | 354                | + 58                          |
| Parma.....                             | 385  | .....   | 385    | 23  | .....                           | 408                        | 372                | + 36                          |
| Cagliari.....                          | 201  | .....   | 201    | .....   | .....                           | 201                        | 191                | + 10                          |
| Royal universities having 2 faculties: |  |   |        |   |                                 |                            |                    |                               |
| Siena.....                             | 229  | .....   | 229    | .....   | .....                           | 229                        | 236                | — 7                           |
| Sassari.....                           | 157  | .....   | 157    | .....   | .....                           | 157                        | 139                | + 18                          |
| Royal university having 1 faculty:     |  |   |        |   |                                 |                            |                    |                               |
| Macerata.....                          | 264  | .....   | 264    | .....   | .....                           | 264                        | 188                | + 76                          |
| Total.....                             | 1,620  | .....   | 1,620  | 51  | .....                           | 1,671                      | 1,480              | + 191                         |
| Royal superior institutes:             |  |   |        |   |                                 |                            |                    |                               |
| Florence.....                          | 529  | .....   | 529    | .....   | .....                           | 529                        | 489                | + 40                          |
| Milan (academy).....                   | 77   | .....   | 77     | .....   | .....                           | 77                         | 61                 | + 16                          |
| Milan (technological institute).....   | 161  | 240   | 401    | .....   | .....                           | 401                        | 418                | — 17                          |
| Milan (veterinary school).....         | .....  | .....   | .....  | 88  | .....                           | 88                         | 71                 | + 17                          |
| Total.....                             | 767  | 240   | 1,007  | 88  | .....                           | 1,095                      | 1,039              | + 56                          |

*Enrollment in higher institutions in 1894-95 compared with 1893-94—Continued.*

| Name, etc.                                 | Faculties, and schools of law, of pharmacy, and of obstetrics. | Schools of application annexed for the engineers. | Total. | Veterinary schools, independent or annexed to universities. | Schools of agriculture annexed. | General total for 1894-95. | Total for 1893-94. | Increase (+) or decrease (-). |
|--|--|---|--------|---|---------------------------------|----------------------------|--------------------|-------------------------------|
| Free universities:                         |  |   |        |   |                                 |                            |                    |                               |
| Perugia.....                               | 265  | .....   | 265    | 38  | .....                           | 303                        | 226                | + 77                          |
| Camerino.....                              | 143  | .....   | 143    | 19  | .....                           | 162                        | 144                | + 18                          |
| Ferrara.....                               | 84   | .....   | 84     | .....   | .....                           | 84                         | 95                 | — 11                          |
| Urbino.....                                | 76   | .....   | 76     | .....   | .....                           | 76                         | 92                 | — 16                          |
| Total.....                                 | 568  | .....   | 568    | 57  | .....                           | 625                        | 557                | + 68                          |
| University schools annexed to the lycæums: |  |   |        |   |                                 |                            |                    |                               |
| Aquila.....                                | 53   | .....   | 53     | .....   | .....                           | 53                         | 49                 | + 4                           |
| Bari.....                                  | 50   | .....   | 50     | .....   | .....                           | 50                         | 28                 | + 22                          |
| Catanzaro.....                             | 46   | .....   | 46     | .....   | .....                           | 46                         | 56                 | — 10                          |
| Total.....                                 | 149  | .....   | 149    | .....   | .....                           | 149                        | 133                | + 16                          |
| Schools of obstetrics:                     |  |   |        |   |                                 |                            |                    |                               |
| Milan.....                                 | 252  | .....   | 252    | .....   | .....                           | 252                        | 259                | — 7                           |
| Novara.....                                | 50   | .....   | 50     | .....   | .....                           | 50                         | 52                 | — 2                           |
| Venice.....                                | 53   | .....   | 53     | .....   | .....                           | 53                         | 48                 | + 5                           |
| Total.....                                 | 355  | .....   | 355    | .....   | .....                           | 355                        | 359                | — 4                           |
| General total.....                         | 21,032   | 1,359   | 22,391 | 577   | 172                             | 23,140                     | 21,749             | + 1,391                       |

### THE CATHOLIC SCHOOL SYSTEM OF ROME.

Through the courtesy of the editor of the North American Review (December, 1894, pp. 641-664), we have been permitted to make extracts from an article on the above subject, written by Archbishop Satolli (since created cardinal). This article clearly defines the work done by the papal authorities in Rome since 1870:

The education furnished in the Catholic schools of Rome is open to all classes, and, although their supreme aim is to educate the new generation in a Christian manner, they vary in method according to the grade, from the infant asylum up to the university courses, which are still exclusively reserved to the State by law. The number of Catholic schools is extraordinarily large, exceeding both that of the Government and municipal schools.

The supreme direction of all these schools is vested in the cardinal vicar, for the congregation of studies has only the surveillance of the higher courses of the clerical institutes. He is assisted in the direction of the elementary schools—

(1) By the pontifical commission, appointed by his holiness in accordance with the letter addressed to the cardinal vicar, dated June 26, 1878. Of this commission the monsignor vicegerent is the head.

(2) By special committee for the schools which are founded and maintained by the Society of Catholic Interests.

(3) By a special committee for the catechetical evening or night schools.

(4) By a special committee for the schools which are dependent on the apostolic almonry.

(5) By a special committee for the night and evening schools.

These committees, although each is independent of the other in its sphere of action, are all subject in general matters to the pontifical commission, in which each of them

is represented by one or more members. This tie, far from being an impediment to the development and progress of the various institutions, rather helps to keep them united by harmonizing their actions in such a way that their work does not conflict.

The pontifical commission, however, reserves the right to regulate questions of discipline, to compile the programmes, select the text-books, fix the days for examination, and other similar matters. It has also charge of the correspondence with the Holy See and the administration of the subsidies given by the Holy Father or by private bodies or individuals.

Two inspectors are assigned to the supervision of the schools which are under the immediate direction of the commission. The committees provide for the other schools. In addition to these inspectors, every member of the commission having the title of "patron" has the supervision of a certain number of schools. Two hundred and eleven different directors, divided up as follows, represent the commission and the committees at the various schools:

|  | Directors. |
|--|------------|
| Free schools for males.....              | 28         |
| Paying schools for males.....            | 14         |
| Evening schools for males.....           | 13         |
| Catechetical schools for males.....      | 8          |
| Industrial schools for males.....        | 4          |
| Asylums and boarding schools.....        | 5          |
| Free schools for females.....            | 50         |
| Paying schools for females.....          | 32         |
| Sunday schools for females.....          | 18         |
| Catechetical schools for females.....    | 7          |
| Evening schools for females.....         | 1          |
| Industrial and professional schools..... | 10         |
| Academies and orphan asylums.....        | 21         |
| Total.....                               | 211        |

As a rule, the directors are not obliged to teach. The selection and inspection of localities are intrusted to an architect, who is attached to the pontifical commission. In the direction of the higher and technical schools the cardinal vicar is assisted by a council of direction, which possesses the same powers as regards the high schools as the pontifical commission has over the primary schools. The members of both these bodies—clergy as well as laity—are noted for their nobility of birth, as well as for piety and learning. In addition to these, there are also high schools, which, although they follow the regulations of the others, may be called independent, inasmuch as they belong to the religious corporations. The number and classification of these schools will be found in Tables A and B:

TABLE A.—*Schools for boys.*

| Classification.                           | Number. | Pupils. |
|---|---------|---------|
| Free schools.....                         | 28      | 3,953   |
| Paying schools.....                       | 14      | 991     |
| Evening schools.....                      | 13      | 1,468   |
| Catechetical schools.....                 | 8       | 885     |
| Industrial schools.....                   | 5       | 501     |
| Free asylums.....                         | 14      | 1,727   |
| Paying asylums.....                       | 3       | 207     |
| Hospices and boarding schools.....        | 5       | 395     |
| Other elementary preparatory schools..... | 4       | 823     |
| Total.....                                | 94      | 10,950  |



TABLE B.—*Schools for girls.*

| Classification.                    | Number. | Pupils. |
|------------------------------------|---------|---------|
| Free schools .....                 | 50      | 5, 692  |
| Paying schools .....               | 32      | 2, 072  |
| Sunday schools .....               | 18      | 1, 274  |
| Evening schools .....              | 1       | 53      |
| Catechetical schools .....         | 7       | 560     |
| Industrial schools .....           | 10      | 448     |
| Free asylums .....                 | 18      | 2, 278  |
| Paying asylums .....               | 5       | 186     |
| Academies and orphan asylums ..... | 21      | 1, 072  |
| Total .....                        | 162     | 13, 635 |

## RECAPITULATION.

|                 | Number. |
|-----------------|---------|
| Of the schools: |         |
| For boys .....  | 94      |
| For girls ..... | 162     |
| Total .....     | 256     |
| Of the pupils:  |         |
| Boys .....      | 10, 950 |
| Girls .....     | 13, 635 |
| Total .....     | 24, 585 |

In speaking of the distribution of schools, Mgr. Satolli says:

It has been the wise and constant aim of the pontifical commission, aided by the religious corporations, to distribute the elementary schools as widely as possible and to conduct them in such a manner that, by their discipline, by the choice of teachers, by the excellence of their method of teaching and their educative course, they should merit the sympathy of the public and the confidence of the family. \* \* \*

The pontifical commission therefore did well in avoiding the plan of erecting large schools at a considerable distance apart and in deciding to establish a number of smaller schools, which, though more modest, would be convenient to all. As a result, there is not only not a parish, but there is hardly a street of any importance in Rome, that does not possess a Catholic school. It must not be inferred from this that the Catholics lack great scholastic edifices. On the contrary, in the past few years some beautiful buildings have been erected through the instrumentality of religious corporations.

Mgr. Satolli lays stress upon the fact that—

The first requisite of a good school is to have good teachers. \* \* \*

And at this point it is only proper to pay a tribute of praise to the religious corporations, which have stopped at no expense or sacrifice to provide the commission with a select body of teachers, both men and women, furnished with proper diplomas, and who, by their ability, zeal, and spotless character, have merited and enjoy to the full the confidence, not only of the commission, but of the public.

Teachers had also to be provided for such schools as were not dependent on religious corporations, of which there are a considerable number, and experience has shown it to be very difficult to obtain teachers who, in addition to their professional diplomas of residence, offer these secure guaranties of sound principles and morality which are indispensable for those who teach in Catholic schools. The pontifical commission therefore deemed it advisable to establish normal or teachers' schools designed to prepare their scholars for the career of teachers. The first of these to be

established was one for women, and is called St. Catherine's Institute. Another similar college for men was founded two years ago. St. Catherine's Institute, which has now been in existence fourteen years, has been productive of excellent results, inasmuch as it not only furnishes the best teachers for Catholic schools, but its graduates are even sought after by the municipality, which justly esteems them for their culture and conduct. The same gratifying results are confidently expected from the male college when its courses shall have been completed. \* \* \*

Speaking of the course of study, Mgr. Satolli says:

In the compilation of the programmes the commission endeavors to bring them as far as possible into harmony with those in use in the public schools, both as regards the division of classes and the courses of studies. In the schools for girls a finishing course of two years was added, so that the pupils, especially in the academies, might be able to acquire a superior education to that imparted at the elementary schools. \* \* \*

As regards the method of teaching, the commission strongly urged the teachers to adhere to the old system, which means that method by following which Dante, keenest of observers, noted the most relevant facts of life and of the physical world; by which Columbus discovered America and Galileo left, in the sphere of physical study, an immortal record. It is the method of observation which the modern Italian pedagogues very unpatriotically declare to have come from over the Alps, while, as a matter of fact, if it can be called the glory of any country, it is the glory of Italy.

The commission decreed that this method should be applied in an Italian spirit—that is, without northern vagueness and exaggeration, and not as a means of combating the supernatural, but of ascending toward it. It holds that the teaching of the school is intended for life, and for the whole life, for man does not live by bread alone. \* \* \*

While the pontifical commission was engaged in the direction of the elementary schools the directive council worked with equal zeal in the management of the high schools. Of the two the latter are the more important, because while the first provide for the education of the lower classes, the second initiate into the sciences and to an upright life that class which, fresh from the universities, is destined to form the cultured and influential section of society.

There are in Rome 18 high schools dependent on the Holy See, viz, 5 lyceums,<sup>1</sup> 5 gymnasiums, 5 technical schools, 2 normal schools, and 1 technical institute of higher grade. [See Table C.]

TABLE C.—*Statistical summary of the high schools for the year 1892-93.*<sup>(2)</sup>

| Institute Angelo Mai:         | Students. |
|-------------------------------|-----------|
| Lyceum .....                  | 70        |
| Gymnasium .....               | 140       |
| Technical school .....        | 100       |
| St. Apollinaris:              |           |
| Lyceum .....                  | 109       |
| Gymnasium .....               | 368       |
| Technical school .....        | 96        |
| Theology <sup>3</sup> .....   | 146       |
| Law <sup>3</sup> .....        | 143       |
| Philosophy <sup>3</sup> ..... | 62        |
| Letters <sup>3</sup> .....    | 23        |

<sup>1</sup>The schools designated as lyceums and gymnasiums are equivalent to our high schools.

<sup>2</sup>The special schools of law, theology, etc., are not included in this number.

<sup>3</sup>Special classes.

| Institute Massimo:  | Students.        |
|---|------------------|
| Lyceum .....  | 48               |
| Gymnasium.....  | 216              |
| Technical school.....   | 59               |
| Vatican Seminary:   |                  |
| Lyceum .....  | 18               |
| Gymnasium.....  | 88               |
| Philosophy <sup>1</sup> .....                                   | 15               |
| Theology <sup>1</sup> .....                                     | 20               |
| College Santa Maria:  |                  |
| Lyceum .....  | } 170            |
| Gymnasium.....  |                  |
| Institute de Merode, technical institute.....                   | 85               |
| Little Brothers of Mary, technical institute (preparatory)..... | 117              |
| Institute of St. Joseph, technical institute.....               | 213              |
| Institute of Fathers of Pious Schools, normal for boys.....     | 17               |
| Institute of St. Catherine, normal for girls.....               | 200              |
| Salesians of Don Bosco Gymnasium.....                           | <sup>2</sup> 100 |
|   | Scholars.        |
| Lyceums.....  | 245              |
| Gymnasiums.....   | 1,082            |
| Technical schools .....   | 585              |
| Technical institutes.....                                       | 85               |
| Normal schools.....   | 312              |
| Elementary preparatory.....                                     | 823              |
| Total .....   | 3,132            |

The technical and normal schools, as well as the technical institutes, have all been founded since 1870—partly during the pontificate of Pius IX and partly during that of Leo XIII. Of the gymnasiums and lyceums 3 have been established since that date; the others were already in existence, but owing to the new laws it became necessary to reform them in many respects.

Of these 18 institutes 7 belong to religious corporations, the remainder being directly dependent on the directive council and pontifical commission. The Collegio Nazzareno, which is a most flourishing institution, is not included among this number, because, although founded and directed by the Fathers of the Pious Schools, it is under the jurisdiction of the local authorities.

As against these 18 Catholic institutions there are in Rome 19 State and 1 municipal high school—that is, 3 lyceums, 4 gymnasiums, 8 technical schools, 3 normal schools, and 1 higher technical institute. If we take into account the lyceum-gymnasium of the Collegio Nazzareno, the Catholic high schools equal in number those of the Government.

In speaking of the religious side of education, Mgr. Satolli says:

The commission has continually reminded the teachers that instruction is good only when it is united with an earnest moral and religious education. It therefore decreed that a fixed time should be set apart daily for catechism, so that the pupils from their earliest years should be familiarized with those pious practices which form the character of the true Christian. \* \* \*

The commission, moreover, being fully convinced that no branch of study, especially philosophy or history, can be correctly and completely taught without the aid of religion, which like a luminous beacon guides the understanding, directed that

<sup>1</sup>Special classes.

<sup>2</sup>The oratory is attended by 700 pupils.

religious instruction should be given at least once a week in all the schools and classes, with a view not only to improve the minds of the pupils, but as the most effectual means of imparting that complete religious and moral education which is the supreme aim of Catholic schools.

In order that the pupils may from their earliest years become familiar with the practices of Christian piety, sodalities have been formed, each of which has a spiritual director, whose duty it is to see that the members comply with the rules and fulfill all their religious duties. Special spiritual exercises are held by these sodalities at Easter, when children whose parents desire it are prepared for their first communion.

The work of the pontifical commission and directive council does not end with the direction of the elementary and high schools, for there is no class of citizens for which these bodies, aided by the religious corporations, have not provided the means of obtaining a Christian education and the highest grade of culture in the easiest manner.

Acting on the advice of the directive council, the holy father founded in Rome 2 institutes of superior courses or finishing courses, namely, the Academy of Historic Jurisprudence and the School of Higher Literature, and selected as their professors men noted for their scientific and literary attainments. The first of these institutions is devoted to jurisprudence, history, and archaeology; the second to ancient and modern literature.

*Boarding houses.*—Two boarding houses have been provided for the scholars who come to Rome from the provinces. One of these has been in existence for many years and is set apart for those who attend the university courses; the other, which is for the girls who attend the teachers' institute, was erected by a committee of ladies as a memorial of the episcopal jubilee of the holy father, and by them turned over to the deserving Salesian Missionary Sisters. It is not only required that those who are admitted to these houses fulfill their duties as good Christians, but, in addition, religious, scientific, and literary conferences are frequently held, with a view to confirming the scholars in good principles.

*Boarding schools.*—There are in Rome 26 boarding schools, of which number 5 are for boys and 21 for girls. They are attended by 395 boys and 1,072 girls. All these schools belong to religious corporations. It is needless to add that the seminaries for the clergy, of which there is a very large number, are not included under this head. The rate charged at these boarding schools ranges from 30 to 80 lire monthly (\$5.79 to \$15.44), so that they are accessible to families of moderate means as well as to those of affluence. In some of these schools free scholarships have been established. \* \* \*

In describing the boarding schools for girls Mgr. Satolli says:

The instruction given to the girls in these boarding schools is divided into two grades—elementary and superior. In some of them the entire normal course is given, thus enabling such pupils as desire it to obtain diplomas. The sisters who conduct these courses are furnished with diplomas of professorship, obtained after examination at the State universities. In the examination which took place for this purpose four years ago by concessions of the minister, the Sisters of St. Ann of Providence, the Oblates of the Infant Jesus, the Ladies of the Sacred Heart, the Marcelline Sisters, and the Sisters of St. Joseph especially distinguished themselves.

The Government maintains in Rome two colleges, viz, a boarding school for girls, which is attached to the normal school, and the provincial school for boys.

*Semiboarding schools.*—To a number of these boarding schools are attached what are known as "mezza pensione;" that is, schools attended by day scholars who take their midday meal there. They are a comparatively new institution, and have met with much favor among the families who have taken advantage of them.

*Orphan and other asylums.*—No city of Italy, or, indeed, in the world, possesses in comparison so many charitable institutions for every class of poor and suffering persons as Rome. \* \* \*



Not to mention those institutions which do not come within the scope of this article or those which existed prior to 1870, I shall only allude briefly to the ones established since that date. Preeminent among these is the Hospice of the Sacred Heart, conducted by the Salesians, which was opened last year by the cardinal vicar as a memorial of the episcopal jubilee of the holy father. It is an immense building of beautiful design, and includes not only elementary schools but also art and industrial schools, a gymnasium, and library. The scholars who attend the day or night schools here are educated gratuitously, and only a very small fee is charged for the boarders. This institution contains in all about 300 pupils. \* \* \*

Another institution which is maintained by voluntary contributions is the Pious Institute of the Immaculate Conception, which was founded by the Brothers of Charity, familiarly known as the Grey Brothers. It receives orphans gratuitously, and also maintains day and boarding schools containing about 400 pupils.

The orphan asylum of the Sisters of Cluny, of St. Jerome Emiliani, the Protectory of St. Joseph, the Asylum of the Sisters of Nancy for Idiot Children, and the Institute for Abandoned Orphans, conducted by the Daughters of the Passion of Calvary, should also be included under this head.

In each of these charitable institutions the inmates, in addition to receiving an elementary education, are specially instructed in some art or trade, thus enabling them to earn an honest livelihood in after life.

*Infant asylums.*—The pontifical commission has under its jurisdiction 40 infant asylums, of which 32 are free. As against these the municipality has only 12. In these asylums, as in every other Catholic institution, every part of the modern method which is good and useful has been adopted. \* \* \*

*Art and trade schools.*—Among the art and trade schools in Rome are the Institute of Pius IX and the Hospice Bonanni, for young artisans; the Institute of Vigna Pia, for instructing poor boys in agriculture, and that of Tata Giovanni, where the poor are instructed in various arts and trades.

In all the above, in addition to reading and writing, special care is given to the study of design, which is accounted a great aid in learning the arts and trades. The evening schools, founded by the Artisan and Working Society, hold examinations yearly of the work of the pupils, which is executed accurately and artistically. \* \* \*

*Industrial schools.*—In addition to the higher courses and finishing courses adapted to the daughters of wealthy parents, industrial schools were opened for girls belonging to the poorer classes. Only those girls are admitted to these schools who have completed the higher courses in the elementary schools, although pupils who have only passed the third class are sometimes admitted. Embroidery of various kinds, sewing, cutting garments, ironing, repairing, and every other branch of housework necessary to qualify the pupils to earn their livelihood are taught here. The most skillful pupils are rewarded by a small daily honorarium. Some of these pupils have earned such a reputation for good work among the people that they receive more work than they can execute.

The professional schools under the direction of the Sisters of Charity of St. Vincent de Paul and of the Sisters of Divine Providence in the Piazza Fiammetta are specially noted for the excellent quality of their work as well as for the number of their pupils.

*Catechetical schools.*—These schools were especially established for the boys and girls who attend the State or municipal schools where no religious instruction is given. There are 15 of these schools, 8 for boys and 7 for girls, the average yearly attendance being 1,445. These schools are a most efficacious help to the clergy, for, like the other Catholic schools, they help to prepare the boys and girls for their first communion and to instruct them in the duties of a good Christian.

*Sunday schools,* which have the same object as the catechetical schools, are 18 in number, and contain 1,274 pupils.

Owing to lack of space, it is impossible to describe all the other Catholic institu-

tions in Rome which have for their aim the education of youth. No mention can therefore be made of the Catholic clubs, the literary and scientific academies, reading and debating circles, etc. \* \* \*

Mgr. Satolli, referring to matters of discipline, states that—

The schools are regarded by many parents simply as places where their children are taken care of for a few hours daily; others look upon them as workshops where the children learn to read, write, cipher, and nothing else. Indeed, there are only a few who appreciate the exalted and delicate function of the schools. It has been wisely ordained that every Catholic school, especially the higher ones, should have a special prefect of discipline. This prefect watches the coming and going of the pupils from their classes, keeps a record of the absent and late ones, corresponds with the parents of the children, and sees that all the regulations are rigidly enforced. The existence of this office helps not only to maintain discipline but is also an important factor in the proper progress of the studies, for the president and directors, being relieved of all care in matters of discipline, are freer to superintend the teaching and teachers.

In order to excite in the pupils the spirit of emulation, prizes are offered at the beginning of each scholastic year. In the higher and paying schools silver medals and diplomas are awarded, while in the free schools gifts of clothing are bestowed.

The punishments inflicted in the Catholic schools are similar to those in use in the State schools, but, happily, it is only very rarely that the severest one, expulsion, has to be resorted to.

In speaking of the expenditures, Mgr. Satolli says:

It is difficult to form an accurate estimate of the amount expended on so many and such varied scholastic institutions as have been mentioned. The paying schools directed by the religious corporations, which provide for current expenses out of their own funds, in common with those which derive an annual allowance from the pontifical commission, depend upon public munificence and upon other sources for the balance necessary for their support. Nearly all the primary schools, and also the secondary institutes, which are directed by lay folk, are entirely dependent upon the pontifical commission and upon the school fund set apart by the holy father.

Taking into account simply the amount furnished by the Pontifical commission and by the administration of the estates of the Holy See for the high schools, the annual expenditure exceeds 1,000,000 lire (\$193,000).

The average yearly income of the pontifical commission is about 400,000 lire (\$77,200), and the outlay nearly equals that amount.

This income is derived—

- (1) From direct donations of the holy father.
- (2) From the administration of the estates of the Holy See.
- (3) From the donations of certain corporations of the chapters of the patriarchal churches, and from the contributions of sacred congregations, and of some private individuals.
- (4) From the fees of the pupils of St. Catherine's Institute and of the Gregorian College.

With the amount thus obtained the pontifical commission provides—

- (1) For the ordinary and extraordinary allowances of the personnel.
- (2) For the furnishing, etc., of the schools.
- (3) For the distribution of books, etc., among the poor pupils.
- (4) For the rental of the schools and asylums.
- (5) For the erection and repairs of buildings. \* \* \*

All the members of the pontifical commission, including the president, who has the general direction of the schools as well as of the administrative office, give their services gratuitously.

There are several schools, orphanages, and asylums, which do not derive their support from the pontifical commission, but which are maintained exclusively by the Roman aristocracy or by Catholic societies or committees.

If the amount which is spent by the religious corporations and that which is saved by their giving their services gratuitously, as well as the sum which is derived annually from public and private benefactors, were added to the amount spent yearly by the pontifical commission, the expenses for primary Catholic education in Rome would reach a total of at least 1,500,000 lire yearly (\$289,500).

Among the schools wholly maintained by the administration of the estates of the Holy See are the Historical-Juridical Academy, the School of Higher Literature, also called the Leonine Institute, the Lyceum-Gymnasium, the Technical School Angelo Mai, and the Technical Institute De Merode.

With the exception of the Leonine Institute, the administration of all these institutions is vested in the directive council.

In summing up the work done in these various institutions, Mgr. Satolli states that—

The supreme end of these institutions, which is religious and moral education, has not been neglected in the regulations, programmes, books, or methods of teaching; and it has been their special aim to deviate as little as possible from the national traditions, which so harmoniously combine faith and science, and to furnish the boys and girls of the new generation with that grade of culture which is best adapted to their social position.

That the Roman people appreciate the beneficent efforts of the holy father and the work of all those who, with sentiments of profound admiration and reverence, assist him, is demonstrated by the ever-increasing number of pupils who flock to the Catholic schools.

#### THE SCHOOLS OF LEGHORN IN 1893.

An interesting presentation of the schools of Leghorn is made by the United States consul, Radcliffe H. Ford. It is here appended.

Mr. Ford says:

The schools of Leghorn compare favorably with those of the United States, considering the time they have been established, as, until the unification of all the provinces of Italy in 1870, there was no general school system. Leghorn has six schools devoted to the teaching of the higher branches and special courses, which are supported by the Government, aided by municipal contributions, ranging from \$1,780 to \$3,500 annually. There are 42 public schools supported entirely by the city, with an annual attendance of about 3,600 pupils, the annual cost of which is about \$55,000. The establishing of these schools throughout Italy marks the first step of real progress for the common people, and can not help being manifest in the coming generations. Among the schools supported by the Government, with municipal aid, are those known as mechanical and industrial schools.

The schools in this district of an industrial nature, where trades or mechanical professions are taught, are situated in Leghorn, Volterra, and Carrara. The school at Leghorn is known as "Scuola di Arti o Mestieri" (School of Arts and Trades), and was established by the municipality under a royal decree in the year 1886, but only went into successful operation in 1888. It is a free school, supported by moneys derived from the following sources annually:

|  |         |
|--|---------|
| City of Leghorn .....                                | \$1,942 |
| Province of Leghorn.....                             | 579     |
| Chamber of commerce, Leghorn .....                   | 232     |
| Ministry of agriculture, industry, and commerce..... | 780     |
| National treasury for schools of machinists.....     | 386     |
| Total .....  | 3,919   |



The age for admission is from 12 to 16 years, and the most of the pupils enter at the earlier limit. For entrance it is necessary that the applicant have a certificate of promotion from the third to the fourth class of the regular public schools or pass an examination showing such proficiency in reading, writing, arithmetic, grammar, and geography as would be necessary for such promotion.

The school will accommodate 170 pupils, and the limit is full.

There are four sections or divisions in the school, and the branches taught and length of course vary in different sections. The sections of the school are as follows:

(1) Industrial and metallurgical, course three years, comprising arithmetic, geometrical drawing, decorative drawing, mechanical design of machinery, with practical work in machine shop, and in the last year technical electricity by oral lessons, with practical work in the manufacture of electricity by an electric-light plant.

(2) Decorative arts, course three years, comprising arithmetic, geometry, decorative drawing, with practical work on room walls with oil colors, lithography, figurative drawing, also carving and modeling in wood, marble, plaster, and pottery.

(3) Machinists and engineers, course two years, Italian language, arithmetic, geometry, algebra, drawing, with practical work in machine shop and on stationary steam engines.

(4) Firemen, course one year, teaching by oral lessons of the construction and work of steam-engine boiler, with practical work on same.

The first and second sections are day sessions, the third and fourth are evening sessions. At the Government exhibition of last summer, at Palermo, for work by schools of this class, several of the pupils received medals and prizes for their proficiency. The school has a room for machine work fitted with lathes and other machinery, the power for which is furnished by their own engine, and it also furnishes the power for an electric plant for lighting the building.

At Volterra is a school known as the Industrial School of Volterra, but it is more properly a school of arts. The instructors teach geometrical, architectural, and figurative drawing, modeling in plaster, and decorative painting. The age of admission is 12, and the same requirements for admission are necessary as at Leghorn; length of course, four years. It has been in existence since the early part of this century, and is now supported as a free school by the State and municipality.

Regarding the schools of this class at Carrara, I quote Mr. Ulisse Boccacci, the consular agent, as follows:

"The only educational school where an industrial and mechanical training is also given is the Scuola Industriale di Carrara, established in this city. It is one of the four similar schools of Italy. The other three are found at Agordo, Iglesias, and Caltanissetta.

"The following are the studies taught at that school: Italian language, history, and geography; English language, industrial design, mathematics, physics, and chemistry; topography and its applications, topographic design; mechanics, general and special; engineering design, mineralogy and geology, and quarry working.

"The applicants can obtain admission by exhibiting a license of a Government technical school or an equal school (*pareggiata*).

"The length of the course of training is two years, and, after having passed examination, pupils may get a diploma of experts in mineralogy.

"The school is public and without charge, and it is supported in equal proportion by the Government, the province, the municipality, and the Chamber of Commerce of Carrara.

"It was founded in the year 1872, with the title of Industrial School. In 1885 it was remodeled, adding to the teaching mineralogy.

"Carrara has, besides, an academy of fine arts, where sculpture, architecture, and carving are taught. It was founded in the year 1769 by the Duchess of Este, reigning at that time in this district.

"The pupils are admitted at the age of 14 years by application made in writing by their fathers or governors, accompanied by necessary documents.



"The length of the courses of training is from seven to ten years for sculpture and five years for architecture and ornaments.

"The average number of pupils frequenting this school is about 250.

"This school is likewise public and without charge, and it is entirely supported by the Government."

The law regarding apprenticeship is very similar to that of the New England States. A minor, with the consent of his father or guardian, may in writing indenture himself with a party for a term of years to be taught a trade. This, however, is but seldom done now in this consular district. The agreements are usually oral when it is contemplated that the whole trade shall be learned from the same party, and stipulate that for the first two years the apprentice receives no wages; for the third year he receives, perhaps, one-half franc (about 10 cents) a day, increased from year to year until at the end of seven years he will receive from 2 to 2½ francs a day. The apprentice under this agreement bears his own expenses. The most of the trades in reality are learned by the minor from the beginning as an assistant or general helper with some party, under whom he gradually acquires a knowledge of the trade, without any agreement between the parties for any special length of time. The learner may be employed by several persons before he masters the trade.

#### CURRENT EDUCATIONAL MOVEMENTS.<sup>1</sup>

These movements include the appointment of commissions to investigate the subject of school programmes and text-books and of physical culture. Then there have been discussions appertaining to manual training, to the prompt payment of teachers' salaries, to increase of pensions for teachers, university reform movements, the more thorough education of women, the establishing of schools complementary to the elementary grades, the extension of obligatory school attendance to 12 years of age, and the need of a more practical education for life's duties. The subject of examinations for entrance to secondary schools has also been discussed, and the holding of the "licenza elementare" admits from State and private schools to secondary schools without other examinations. Students of gymnasia and lyceums receive the "licenza liceale" from 1894 on, if they have earned it by completion of three or five years of study, with the cum laude additional to the passing of the examinations. With the "licenza liceale" scholarships are granted for further study in Rome or other prominent university centers. The changes in the ministries<sup>2</sup> may have modified the carrying

<sup>1</sup>Current events, historical data, and indices compiled by Miss Frances Graham French, specialist in the school systems of Northern and Eastern Europe. Authorities consulted: *Bollettino Ufficiale del Ministero dell' Istruzione Pubblica*; *Il Nuovo Educatore*; *La Nuova Antologia*; *La Rassegna Nazionale*; *Rivista di Pedagogia e Scienze Affari*; *Il Lavoro Manuale Educativo*; *La Questione Universitaria per Carlo Cantoni*; *Sulla Libertà d' Insegnamento e di Studio nelle Università per Carlo Cantoni*; *Atti Parlamentari*; *Codice della Istruzione Pubblica*; *Nuove Illustrazione e Commenti alle Leggi e Discipline sulla P. Istruzione*; *L'Instruction Publique en Italie par C. Hippeau*; *Revue Pédagogique*; *Revue Internationale de l'Enseignement*, etc., etc.

<sup>2</sup>Ministers since 1847: Cesare Alfieri di Sostegno, November 30, 1847, to March 16, 1848; Carlo Bon-Compagni di Mombello, March 16-July 29, 1848; Urbano Rattazi, July 29-August 4, 1848; Vincenzo Gioberti, August 4-16, 1848; Felice Merlo, August 16-27, 1848; Carlo Bon-Compagni di Mombello, August 29-December, 1848; Carlo

out of these various plans, but enough has been done to indicate the efforts toward educational progress made by Italian statesmen. As far as can be ascertained, the educational movements which tend to become permanent bases of school operations are here noted.

The heavy burden entailed upon the Italian Government by the effort to keep the army on a war footing seemed to necessitate cutting down the budget in other directions; hence an effort was made to close several of the universities<sup>1</sup> where there were but few students, and to bring those students to the large university centers, such as Naples, Turin, or Rome. In 1892-93 the Government eliminated from the budget the subsidies accorded to the free universities of Camerino, Ferrara, Urbino, and Perugia. The students at once revolted; local pride and tradition were touched; great opposition was developed, and every effort that has been made so far to change existing conditions in the universities has met with similar opposition. There were so few students at Macerata (264), Cagliari (201), Modena (384), Parma (385), Sassari (157), and Siena (229) that the Government's desire to suppress them seems but natural, if it is considered that the intellectual and financial benefits accruing to the public are not sufficient to warrant their continuance. However, the strong objections raised in those university centers led to a lowering of the subsidies for all universities that year (1892-93).

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Cadorna, December 16, 1848, to March 27, 1849; Christoforo Mameli, March 27, 1849, to November 10, 1850; Pietro Gioia, November 10, 1850, to October 20, 1851; Luigi Carlo Farini, October 21, 1851, to May 21, 1852; Carlo Bon-Compagni di Mombello, May 21-November 4, 1852; Luigi Cibrario, November 4, 1852, to May 31, 1855; Giovanni Lanza, May 31, 1855, to October 18, 1858; Carlo Cadorna, October 18, 1858, to July 19, 1859; Gabrio Casati, July 24, 1859, to January 15, 1860; Terenzio Maniani della Rovere, January 20, 1860, to March 22, 1861; Francesco De Sanctis, March 22, 1861, to March 3, 1862; Pasquale Stanislao Mancini, March 3-31, 1862; Carlo Mattenci, March 31-December 7, 1862; Michele Amari, December 7, 1862, to September 23, 1864; Giuseppe Natoli, September 23, 1864, to December 31, 1865; Domenico Berti, December 31, 1865, to February 17, 1867; Cesare Correnti, February 17-April 10, 1867; Michele Coppino, April 10-October 27, 1867; Emilio Broglio, October 27, 1867, to May 13, 1869; Angelo Bargoni, May 13-December, 1869; Cesare Correnti, December 14, 1869, to May 18, 1872; Quintino Sella, May 18-August 5, 1872; Antonio Scioloja, August 5, 1872, to July 10, 1873; Antonio Scioloja, July 10, 1873, to February 6, 1873; Girolamo Cantelli, February 7-September 6, 1874; Ruggiero Bonghi, September 27, 1874, to March 24, 1876; Michele Coppino, March 25, 1876, to March 24, 1878; Francesco De Sanctis, March 24-December 19, 1878; Michele Coppino, December 19, 1878, to July 13, 1879; Francesco Paolo Perez, July 14-November 24, 1879; Francesco De Sanctis, November 25, 1879, to January 1, 1881; Guido Baccelli, January 2, 1881, to March 29, 1884; Michele Coppino, March 30, 1884, to February 16, 1888; Paolo Boselli, February 17, 1888, to February 8, 1891; Pasquale Villari, appointed February 9, 1891; Signor Martini, appointed May 15, 1892; Signor Gallo, appointed December 3, 1893; Guido Baccelli, appointed December 13, 1893.

<sup>1</sup>According to Signor Martini, the universities are too numerous; there is deficiency in scientific appliances, and too great poverty of endowment. The possible remedies include restrictions in right of conferring degrees, greater autonomy in the management of each university, and the suppression of a certain number. (*Nuova Antologia*, March 15, 1894.)

| Universities.  | Previous years. | In 1892-93.  | Universities. | Previous years. | In 1892-93.  |
|----------------|-----------------|--------------|---------------|-----------------|--------------|
|                | <i>Lire.</i>    | <i>Lire.</i> |               | <i>Lire.</i>    | <i>Lire.</i> |
| Bologna .....  | 114, 415        | 108, 303     | Parma .....   | 54, 523         | 51, 700      |
| Cagliari ..... | 23, 942         | 22, 347      | Pavia .....   | 82, 100         | 77, 490      |
| Catania .....  | 64, 854         | 62, 164      | Pisa .....    | 100, 810        | 94, 299      |
| Genoa .....    | 93, 562         | 89, 405      | Rome .....    | 194, 453        | 185, 203     |
| Messina .....  | 36, 300         | 34, 470      | Sassari ..... | 21, 700         | 20, 430      |
| Modena .....   | 50, 290         | 47, 961      | Siena .....   | 55, 806         | 53, 337      |
| Naples .....   | 165, 100        | 157, 474     | Turin .....   | 120, 800        | 114, 020     |
| Padua .....    | 134, 983        | 127, 256     |               |                 |              |
| Palermo .....  | 142, 375        | 136, 137     | Total .....   | 41, 456, 014    | 41, 382, 000 |

*a* Or, in dollars, \$281,010; \$266,706; \$14,364 decrease.

There are doubtless other economies in the budget outside of those for universities. The programme of studies in the Italian universities ranks with that of prominent universities of Europe and, as is stated by Professor Oldrini, "in several branches, such as legal jurisprudence and moral and economic social sciences, Italy holds a prominent place among them." The programmes of the universities and those of the special and superior institutes newly created within the last twenty years have been thoroughly modified according to the requirements of modern ideas and the advancement of sciences, literature, and arts. Among other things "sociology is taught in 10 universities and in several autonomous academies, and scientific pathological sociology forms a basis of treatment for the criminal."

In 1891-92 the minister of public instruction, Signor Pasquale Villari, introduced a bill in the Chamber of Deputies modifying the organization of provincial school administration and another bill reorganizing the higher council of education. According to these bills, the "provveditore" and the school council of each province are to have only the elementary schools under their charge, while a new officer, "provveditore dell'istruzione secondaria," is to have charge of secondary education in the province. These officials are to reside in the cities of Turin, Milan, Padua, Bologna, Florence, Rome, Naples, Bari, Palermo, and Cagliari. Each of these provveditore is to be assisted by a council for secondary education. The bill relative to the higher council of education reduces the number of its members from 36 to 24, who are to be appointed for six years, 4 of them going out each year, and they will only be eligible for reelection after a year's interval. Of the 4 members to be appointed each year, 2 are to be chosen by the minister and 2 others in turn designated (to the ministers) by the faculties of higher studies. It is somewhat doubtful whether these bills became laws, as Minister Villari was succeeded by Minister Martini in 1892 (May 15).

Signor Villari's successor submitted an elaborate and interesting programme of reforms in the educational organization of the Kingdom. He first proposed to establish a "scuola unica di cultura generale," to follow after an elementary school course of five years' duration. This institution is to combine some characteristics of the lower classes in the present "ginnasio" with studies in similar classes of technical schools.



A three-years course is to serve as a preparatory course for practical life and for higher schools. The communes were expected to establish and in part maintain this "scuola unica," but, as with other schools, a State subsidy is desired. The course is to be somewhat elective, so that students may pursue the studies most suited to their needs.

The statement has been made that in the reorganization of public school education the elementary has been sacrificed to that of secondary instruction. One of the Italian deputies, Signor Gallo, considered that individuals are mistaken who yield to secondary education the same efficacy as a means of educating the people as to elementary education. He also advocates a "school complementary to the elementary," where the pupils may be prepared for life's duties and for the defense of the country. The reform movements tend, as different authorities indicate, to modify the traditional rigidity of Italian secondary education and to introduce a more elastic and modern régime rather than to overturn the whole edifice. The figures indicate that the number of pupils in secondary schools has more than doubled within the last twenty years, and more progress is perceptible in these than in the elementary grades. Hence the greater effort to bring about reform movements in the elementary grades by the appointment of commissions to investigate their needs, for it is stated that the methods now employed in elementary grades tend toward "the arid process of mental exercises to the detriment of the development of the reasoning power and of the moral aims of education." In secondary school matters the discussions are, as in other countries, whether classical or a more practical education is necessary. The former acts as a disciplinary power, giving more intellectual force; the latter gives greater mastery over the material world and forms a stronger backbone to the nation.

Signor Cavallotti, deputy, urges the doing away with the present cumbersome school organization, the numerous officials, the surplus universities, and that in place of so many "half-starved savants encumbering the social plane" there be established "practical training schools for citizens who will be of value to the nation."

The commission appointed to revise the programmes of elementary studies presented the result of their labors to the minister of public instruction on November 22, 1894. The general regulations of the year 1888 were adhered to, but there were special recommendations concerning education and discipline in general. Complaint was made all over Italy of too many studies, and of those unsuited to the age of the child, and of too many daily exercises. The effort of the commission was to bring the studies, which are to be fewer in number, within the scope of the child's mind, and to reduce the number of hours a day in the classes. The subjects of study required for examination are Italian (in which the child must give clear expression to his thoughts), penmanship, geography, arithmetic (the common rules), and



history (local and general of Italy of past and present periods), and the duties of citizenship. There are exercises in gymnastics, singing, and needlework, but discretionary powers are given to the teachers. Morals are taught by example rather than by any set lessons to the pupils. The higher problems of arithmetic are relegated to the secondary schools. The programme covers the years 6 to 10, and if still further elementary instruction is needed there are the Sunday and holiday schools.

As an indication of the methods of study and recitations required in the elementary grades, the code of education is cited in part. Reforms now tend toward more simple methods:

*Preliminary instruction.*—In the elementary schools arithmetic must be taught in a manner altogether practical. Let the master abstain from giving demonstrations which would not be understood at that tender age. Let him limit himself to impressing well on the minds of the pupils the definitions and the working of the "four rules," and to see that they are worked expeditiously and without hesitation.

When the teacher proposes concrete problems the questions proposed must be most simple, so that the pupils may readily perceive the connection between the requirements of the problem and the particular operations required for its solution.

To teach what little is requisite of the notation of vulgar fractions let the teacher begin by explaining with precision the meaning of the fractions  $\frac{1}{2}$ ,  $\frac{2}{3}$ ,  $\frac{1}{4}$ ,  $\frac{1}{5}$ , etc., and let him subsequently cause the pupils to construct tables of the multiples of these fractions.

From such tables will naturally follow the notions of proper and improper fractions, and of mixed numbers, the idea of composite numbers, and the rule for converting an improper fraction into a mixed number, and vice versa.

In teaching the rule of three let the teacher's principal aim be to communicate to his pupils a sure criterion for distinguishing the cases to which this rule applies.

*First year.*—Mental exercise in addition and subtraction. Reading and writing of Arabic figures.

*Second year.*—Numeration and notation of numbers with several digits. Addition and subtraction of integers. Multiplication by integers.

*Third year.*—Division of integers. The four rules with decimals. Definition and free-hand drawing of the most important geometrical figures. The metric system. Solution of simple problems with concrete numbers.

*Fourth year.*—Meaning of a fraction. Proper and improper fractions and mixed numbers. Interconversion of fractions. Reduction of an improper fraction to a mixed number, and vice versa. Conversion of a vulgar fraction to a decimal. Rule of three by unitary method. Applications.

#### A.—FIRST CLASS (LOWER SECTION).

*Italian language.*—Graduated exercises in formation of syllables, analyzing words selected for that purpose and explained. Formation of letters, syllables, and words by imitation. Writing from dictation words of simple syllables. Graduated lessons in reading and in correct pronunciation. Explanation of words and sentences read. Writing from copy or dictation.

*Orthography.*—Memory exercises.

#### B.—SECOND CLASS.

*Italian language.*—Reading with ease and intelligence, with explanation of the matter read. Dictation and orthography. Graduated exercises in calligraphy.

*Parts of speech.*—Conjugation of auxiliary verbs and of regular verbs by means of

sentences carefully selected to inculcate moral truths and to illustrate rules of grammar. Elementary knowledge of analysis. Short and easy composition by imitation exercises on the nomenclature of objects in daily use.

#### C.—THIRD CLASS.

*Italian language.*—Reading, with explanation of the matter read. Declension of nouns and adjectives. Conjugation of irregular and defective verbs. Use of the parts of speech and oral exercises in grammatical analysis. Periods and punctuation. Graduated exercises of composition. Short tales, easy descriptions, letters. Exercises in nomenclature of objects in domestic use, of trades and arts.

*Progressive exercises in calligraphy.*—Memory exercises.

#### D.—FOURTH CLASS.

*Italian language.*—Reading, with explanation of the matter read. Usual grammar and exercises. Composition. Tales from the history of Italy, fables, descriptions, letters on various subjects. Nomenclature of objects in domestic use, of trades and arts.

*Progressive exercises in calligraphy.*—Memory exercises.

In the teaching of geography attention is called to geography of the first three classes in the gymnasium. This study must be directed to a double purpose: First, to give to the students (and especially those who will not attend the higher classes) an elementary but complete knowledge of the earth, and particularly of Italy; and, secondly, to be auxiliary to the study of history.

That the knowledge of the earth may be, albeit elementary, yet complete, it must comprise mathematical, astronomical, physical, and political geography. But in all this, having regard to the nature of the science and to the tender age of the pupils, it is necessary that the professor should proceed with foresight in the selection of the matter to be taught, dwelling on principles, and illustrating them in such a manner as to render them clear to the intelligence of the students, taking care, however, that the popular explanations and illustrations which he makes use of do not militate against scientific explanations; and further, that he should not substitute some mere practical process for one thoroughly scientific, since frequently it is the case that, to understand or remember a fact better, it seems advantageous to communicate extrinsic facts, rather than to thoroughly investigate their intrinsic nature and their correlation to each other.

This premised, the study of geography is divided as follows:

*First class.*—General notions of astronomical, topographical, physical, and political geography. Detailed geography of Italy.

*Second class.*—Geography of the Old World.

*Third class.*—Geography of America and Australia. Systematic recapitulation.

That the teaching may be easy, efficacious, and most fruitful it must be given *viva voce*, with no other help but the artificial globe and maps.

The student should imprint on his mind the form of the earth, her parts, and principal subdivisions and phenomena (*accidenti*), and the political arrangement in outline.

The reading of the programmes for the higher schools of the Kingdom suggest, among other things, the advantage which teachers in Italian schools enjoy with regard to the teaching of history. In no other country<sup>1</sup> can the course of universal history be so easily and naturally combined with the history of the nation, while the distinction

<sup>1</sup> We quote from a writer in the *London Journal of Education*, April 1, 1891.

between ancient and modern is to a great extent obliterated by the continuity of Rome. The history programme for the higher schools marks off five periods: (1) Greek history; (2) Roman history, from the origin of Rome to the fall of the Western Empire; (3) history of Europe, with special reference to Italy, from the fall of the Western Empire to the discovery of America; (4) from the discovery of America to the treaty of Aix-la-Chapelle; (5) from the treaty of Aix-la-Chapelle to the death of Victor Emmanuel.

In Italy also the question of gymnastics has attracted much attention, and a commission has lately presented its report on the principles to be followed in teaching them, or, rather, in training masters and mistresses to teach them, in the normal schools of gymnastics which are already established at Rome, Naples, and Turin. The report pronounces for a combination of gymnastics with apparatus, and natural gymnastics, i. e., athletics and games. The programme for the training of teachers includes such instruction in anatomy and physiology as is necessary for mastering the theory of the subject. Practical gymnastics are to include various athletic exercises and games, swimming (for both sexes), and single-stick and some sword exercises (for boys).

According to the report in regard to "*Educazione fisica nelle scuole*," published in the *Bollettino Ufficiale dell'Istruzione pubblica*, November 30, 1893, the commission for the study of physical training desires to formulate regulations which will tend to form healthy and robust men as useful citizens and prepared to defend the country in moments of peril. Stress is laid upon the care that teachers should have in regard to the use of apparatus unsuited to youths under 14 years of age, and special care must be taken in these exercises as to the overuse of gymnastics by girls of any age. Teachers are to be thoroughly trained in the use and abuse of gymnastics, or there can never be a rational application of such exercises. Buildings or rooms should be large and well ventilated, to be useful for purposes of physical training. The president of the commission, Signor F. Todaro, suggests that a permanent commission be appointed for the study and supervision of physical training, and that the numerous Italian gymnastic societies (more than 100) be encouraged to form a sort of federation, to place their courses before the minister of public instruction, to join with the commission in developing the best methods for physical culture, and that subsidies be granted to promote the extension of physical training. He hopes that playgrounds may be established, athletic games encouraged, rowing, climbing mountains, riding, and in fact that everything pertaining to the development of the body may be encouraged by the authorities. The commission does not suggest the introduction of military training into the schools, but limits itself to such training as would naturally come under the heading of gymnastics or physical training, so as to strengthen the body, accustom the youth to endure fatigue, expand the chest, make the body obedient to his will; all this will act as a disci-



plinary force and aid in making good soldiers when the time comes for entering the army.

The first national congress for the study of the subject of manual training was held in Ripatransone in September, 1889, and that city (in the Picine territory, 30 or 40 miles south of Ancona) is now recognized as the center for the diffusion of manual training throughout Italy, as the school established there is a summer normal school for manual training. The gradual ingrafting of this phase of education upon the school system of Italy may be best understood by extracts from a letter of Professor Paroli to the teachers of Italy, which appeared as the preface to "*Principi Fondamentali del Lavoro Manuale Educativo*" (the Italian edition of Otto Salomon's lectures on manual training). First it may be stated that in 1887 the Italian Government sent 16 male teachers to Nääs, in Sweden, to study in the summer manual training course there, and the result of their study was to interest prominent men of Italy in the subject of sloyd.

Professor Paroli says:

In our own country the work of Herr Salomon has found many imitators, who have been more courageous and intelligent than fortunate. Professor Tegon at Rome, the coadjutor of Pastorello, Borgna at Turin, Frascara at Genoa, Professor Pasquali at Brescia and Assizi, Professor Consorti, at first with Sutto and Pastorello, afterwards with Pasquali at Ripatransone, have started experiments which, when completed, will be attended with good results. But some maintain that these experiments have not yet produced the true manual scholastic work—i. e., the work that might be taught in our elementary schools with brilliant results, judged from the didactic, educational, and hygienic point of view. I do not attempt to pronounce judgment, the more so because I have not been able to compare with my own eyes the results of the various experiments that I have mentioned above. But from what I have been able to see and from what has been told me I believe that in each of these attempts there has been a satisfactory harvest of practical results.

The minister of public instruction has therefore decided to give a certain stimulus to fresh efforts, by arranging for a number of teachers from the royal normal schools to go and attend the autumn courses held at Ripatransone, which has now become the center of the movement for the diffusion of manual instruction in our country. We may therefore expect that the experiment will continue, being sure that when these new masters know how to give manual instruction according to precise rules, it will, without further delay, form part of the curriculum of our elementary schools, which will then, and then only, have acquired the character of national schools, or schools for the people. During the last few years, too, a new branch of scholastic literature has been started amongst us—that which treats especially of manual instruction. In this branch the publications of Gabelli, Villari, and Latino certainly occupy the first place, but the accounts that Professors Pick, Tegon, Gabrielli, Borgna, and others have published on the work of the Italian commission are also worth perusal. And worthy of mention, too, are the works of Professors Goldfarelli, Pastorello, Pasquali, and others on the important subject of educational work. A monthly journal, *Il Lavoro Manuale*, has been published for some time at Milan, but the efforts of its manager and editor have not met, amongst the Italian scholastic public, with the favor they have deserved—an evident sign that the subject is for the most part premature.

I do not venture to ask myself what reception the scholastic public will give the work of Herr Salomon. I conjecture that it will at least be discussed and that from



this discussion the champions of manual work, who are not wanting even in Italy, if they take advantage of it will come out strengthened and will see an increase of their forces, which at present, however courageous they may be, are scanty in numbers. \* \* \*<sup>1</sup>

The present minister of public instruction, Comm. Guido Baccelli, is so much interested in manual training as an educative force that he has offered prizes to those teachers who introduce it into their schools and has made it an obligatory study in the practice department of the normal schools. Detailed statistics are to be required at close of the year. Two hours a week must be devoted to this study. The normal course<sup>2</sup> at Ripatransone opens on August 28 and closes on September 27. The regular programme includes (a) Froebelian exercise and exercises preparatory to feminine handiwork; (b) complete course in cardboard work as applied to elementary geometry; (c) course in potters' clay work; (d) zinc and iron work; (e) work in wood. In 1893 there were 34 men and 34 women teachers frequenting the course. Several of these teachers received Government subsidies to aid them in the study of manual training, but 7 men and 27 women teachers paid their own expenses rather than not to have the training. The men devote forty-five hours a week to manual-training work (twelve for wood, twelve for iron, twelve for paper, and nine for clay work); the women forty-two hours a week (twelve for Froebel exercises, twelve for feminine handiwork, nine for geometric work in cardboard, and nine for clay work). Examinations are held on September 23 and 24, and on September 25 and 26 there is a public exhibition of the objects completed in the course; these number from 100 to 120 for each man teacher, and from 120 to 150 for each woman teacher. Representations of the success of this work are made by the director to the minister of public instruction. The director requests continued subsidies to teachers, and also to district inspectors, so that they may interest themselves in having manual training introduced into the elementary schools of their districts. He also suggests the beginning of a library for manual-training literature.

Several times within the last ten or fifteen years projects have been formed combining Italian teachers in some sort of general association. To promote this end a congress was summoned to meet at Milan on the 3d of September, 1894. The meeting, presided over by Professor Rho, of Turin, was attended by about 500 men and women teachers. It was decided that complete organization could only be obtained by means of district federation, and a vote was passed in favor of the immediate formation of Lombardian Federation. A committee of 6 was nominated to draft a constitution of a great national federation of all teachers to be presented at the next Italian teachers' association. Later developments will be watched with interest.

<sup>1</sup> From J. S. Thornton in London Journal of Education of August 1, 1894, pp. 431-433.

<sup>2</sup> Bollettino Ufficiale del Ministro dell' Istruzione Pubblica, February 1, 1893.

A decree of Minister Baccelli, dated September 5, 1894, in favor of pedagogical conferences, ordered the holding of ten-day sessions—September 20 to 30—in the cities of Bari, Bologna, Brescia, Cagliari, Florence, Genoa, Milan, Naples, Palermo, Turin, and Venice. All teachers and officials connected with elementary education were expected to be present at the discussions to be held publicly. Academic discourses are not to be held, but opportunities are to be given to the majority of those present to enter upon a discussion of questions of general educational interest.

A congress (the third) of "Ricreatori" was held in Genoa in 1894, which body has for its object the study of the best means of ameliorating the condition of the masses, the "Ricreatori" to be an ally of the school, and to form a link between the home and school.

A congress of educators was held in Rome, September 21 to 23, 1895, the day after the anniversary of the entrance of the troops into Rome. The resolutions adopted were that "the elementary schools be made dependent on the State; that obligatory instruction be extended to 12 years of age, and that the instruction include the whole elementary school programme; that all children of public and private schools be obliged to pass a public examination; that the law regarding children at work in factories be carried out, as far as it appertains to obligatory instruction, under penalty of fines imposed on employers; that a continuation school be established either for Sundays or evenings to prepare young people for civil life who have passed the obligatory school age, and that they be obliged to remain in it until the twentieth year of age; that instruction have a scientific basis and be given according to natural methods; that in religion the schools be absolutely neutral; that patriotism be inculcated; that the school programme be so reformed as to make the teaching of history a central point toward civic education; that the hours of study be made uniform in all schools; that people's libraries be established everywhere, so that there may be an extension of the study of national history and other useful knowledge; that the moral and material conditions of teachers be ameliorated, and the minimum of salary be 1,200 francs (\$232); that no difference be made in salary given to teachers of upper or lower classes between men and women."

In the early part of 1895 an international congress for children was to be held in Florence. The questions to be discussed were the advancement of the physical, moral, and mental condition of children, the care of deaf, dumb, and blind children until they are old enough to enter an institution, the care of poor, abandoned children, and the establishment of children's hospitals.

## SCIENTIFIC AND PROFESSIONAL ORGANIZATIONS.

In December, 1891, Mr. Augustus O. Bourn, consul-general of the United States to Italy, furnished this office with a list of academies, scientific institutions, libraries, etc., within the consular district of Rome.

This list is as follows:

| Title.   | Location.    | How supported or patronized.  |
|--|--------------|---|
| Accademia Reale dei Lincei (scientific and literary).                                | Rome.....    | By the Government to the extent of 100,000 lire ( <i>a</i> ) per year.  |
| Accademia Reale di Medicina di Roma (scientific).                                    | .....do..... | By its own endowment, with additional annual subsidies of 2,000 lire from the municipality, and 5,500 lire from the Government.   |
| Accademia degli Arcadi (literary).....   | .....do..... | By its own endowments and patronage of the Pope.  |
| Accademia Tiberina (literary).....   | .....do..... | Do.   |
| Accademia dei Nuovi Lincei (scientific and literary).                                | .....do..... | Do.   |
| Accademia di Francia (fine arts).....  | .....do..... | By the French Government.   |
| Associazione Medica Italiana (medical).  | .....do..... | Entirely by contributions of its members.   |
| Associazione Farmaceutica Nazionale (pharmaceutical).                                | .....do..... | Do.   |
| Associazione Nazionale di Medici Comunali (medical).                                 | .....do..... | Do.   |
| Collegio Chimico-Farmaceutico di Roma (chemical and pharmaceutical).                 | .....do..... | Do.   |
| Comitato Medico Romano (medical).  | .....do..... | Do.   |
| Associazione Nazionale dei "Ragionieri Italiani" (auditors).                         | .....do..... | Do.   |
| Collegio dei "Ragionieri" (auditors).....  | .....do..... | Do.   |
| Società degli Ingegneri ed Architetti Italiani (engineering and architecture).       | .....do..... | Do.   |
| Società Italiani di Medicina Interna (medical).                                      | .....do..... | Do.   |
| Società Italiana di Chirurgia (surgical).  | .....do..... | Do.   |
| Società Italiana di Dermatologia e Sifilografia (medical).                           | .....do..... | Do.   |
| Società Fonografica Italiana (phonographical).                                       | .....do..... | Do.   |
| Società Stenografica Centrale Italiana (stenographical).                             | .....do..... | By the contributions of its members, and an additional annual subsidy of 500 lire by the municipality.                            |
| Società Lancisiana degli Ospedali di Roma (medical).                                 | .....do..... | Entirely by contributions of members.   |
| Istituto Storico Italiano (historical).....  | .....do..... | By the Government to the extent of 10,000 lire annually, and by contributions of members.   |
| Reale Società Romana di Storia Patria (historical).                                  | .....do..... | By its endowments, and a subsidy of 2,000 lire annually from the Government.  |
| Reale Società Didascalica Italiana (didactical).                                     | .....do..... | Do.   |
| Associazione fra gl' Insegnanti primari d' Italia (educational).                     | .....do..... | Entirely by the contributions of members.   |
| Società per la Istruzione Scientifico-letterario e Morale della Donna (educational). | .....do..... | Do.   |
| Società Letteraria dei Cattolici Tedeschi (literary).                                | .....do..... | By its own endowments and contributions of its members.   |
| Accademia Inglese di Belle Arti (fine arts).   | .....do..... | By the British Government.  |
| Accademia Belga (fine arts).....   | .....do..... | By the Belgian Government.  |
| Accademia di Spagna di Belle Arti (fine arts).                                       | .....do..... | By the Spanish Government.  |
| Insigne Accademia Romana di Belle Arti denominata di San Luca (fine arts).           | .....do..... | By its own endowments.  |
| Regia Accademia di Santa Cecilia (musical).  | .....do..... | With annual Government subsidy of 40,000 lire, with annual subsidies of 30,000 from the municipality and 5,000 from the province. |
| Real Accademia Filarmonica, Roma (musical).  | .....do..... | Partly by endowments and partly by contributions of members.  |
| Società Orchestrale Romana (musical)....   | .....do..... | Entirely by contributions of members and proceeds of its concerts.  |
| Società del Quintetto (musical).....   | .....do..... | Do.   |
| Collegio e Scuola Gregoriana (musical)....   | .....do..... | By its endowments and tuition paid by students.   |

*a* The lira is 19.3 cents in value.



| Title.   | Location.          | How supported or patronized.   |
|--|--------------------|--|
| Congregazioni Artistica dei Virtuosi al Pantheon (musical).            | Rome.....          | By its endowments and tuition paid by students.  |
| Studio e Fabbrica di Mosaici (mosaics).....                            | do.....            | By its own endowments and patronage of the Pope.   |
| Studio e Fabbrica di Arazzi (tapestry).....                            | do.....            | Do.  |
| Regio Istituto di Belle Arti in Roma (fine arts).....                  | do.....            | By the Government to the extent of 79,500 lire per year.   |
| Regia Calcografia (engraving).....                                     | do.....            | By the Government to the extent of 16,500 lire annually.   |
| Accademia Pontificia di Archeologia (archeology).....                  | do.....            | By its endowments and patronage of the Pope.   |
| Società Romana d'Incoraggiamento per gli Artisti (fine arts).....      | do.....            | Entirely by the contributions of its members.  |
| Associazione Artistica Internazionale (fine arts).....                 | do.....            | Do.  |
| Società degli Amatori e cultori di Belle Arti (fine arts).....         | do.....            | Do.  |
| Società degli Acquarellisti (fine arts).....                           | do.....            | Do.  |
| Associazione degli Amatori di Fotografia in Roma (photographical)..... | do.....            | Do.  |
| Società Musicale Romana (musical).....                                 | do.....            | By proceeds of its concerts and contributions of members.  |
| Società Italiana delle Scienze dette dei XI (scientific).....          | do.....            | By its own endowments.   |
| Società Geologica Italiana (geological).....                           | do.....            | Do.  |
| Comitato Geologico d'Italia (geological).....                          | do.....            | Do.  |
| Società Geografica Italiana (geographical).....                        | do.....            | By the Government, with 50,000 lire annually, and by contributions of members.                       |
| Società Archeologica Anglo-Americana (archeological).....              | do.....            | Entirely by contributions of members.  |
| Imperiale Istituto Archeologico Germanico (archeological).....         | do.....            | By the German Government.  |
| École Française de Rome (archeological).....                           | do.....            | By the French Government.  |
| Associazione della Stampa Periodica in Italia (press association)..... | do.....            | By the contributions of members.   |
| Regia Università di Roma.....  | do.....            | By the Government, with 1,085,096 lire annually.   |
| Università Israelitica di Roma.....                                    | do.....            | By endowments.   |
| Regia Università di Cagliari.....                                      | Cagliari.....      | By the Government, with 162,818 lire per year.   |
| Regia Università di Sassari.....                                       | Sassari.....       | By the Government, with 143,403 lire per year.   |
| Regia Università di Macerata.....                                      | Macerata.....      | By its own endowments and an annual Government subsidy of 25,811 lire per year.                      |
| Università di Perugia.....   | Perugia.....       | By its own endowments.   |
| Università di Urbino.....  | Urbino.....        | By its own endowments and an annual Government subsidy of 1,723 lire per year.                       |
| Università di Camerino.....  | Camerino.....      | By its own endowments.   |
| Regia Istituto di Marina Mercantile.....                               | Cagliari.....      | By appropriations from the Government, varying from year to year.                                    |
| Regio Istituto Tecnico.....  | Perugia.....       | Do.  |
| Regio Istituto Tecnico.....  | Camerino.....      | By the municipality and the province to the extent of 8,334 lire and 5,000 lire respectively.        |
| Regio Istituto di Marina Mercantile.....                               | Ancona.....        | By appropriations from the Government, varying from year to year.                                    |
| Regia Scuola Normale.....  | Ancona.....        | Do.  |
| Regia Scuola Normale.....  | Pesaro.....        | Do.  |
| Regia Scuola Normale.....  | Macerata.....      | Do.  |
| Regia Scuola Normale.....  | Ascoli-Piceno..... | Do.  |
| Regia Scuola Normale.....  | Urbino.....        | Do.  |
| Regia Scuola di Applicazione per gli Ingegneri.....                    | Rome.....          | By the Government to the extent of 165,993 lire per year.  |
| Regio Liceo Ginnasio Umberto I.....                                    | do.....            | By the Government, variable appropriations, and by the municipality 13,000 lire per annum.           |
| Regio Liceo Ginnasio Ferenzio Mamiani.....                             | do.....            | By the municipality, with 4,000 lire per annum, and variable appropriations from the Government.     |
| Regio Liceo e Ginnasio Quirino Visconti.....                           | do.....            | By appropriations from the Government, varying from year to year.                                    |
| Regio Istituto Tecnico Leonardo da Vinci.....                          | do.....            | By the municipality, with 8,000 lire per annum, besides variable appropriations from the Government. |
| Regio Istituto Superiore di Magistero Femminile.....                   | do.....            | By appropriations from the Government, varying from year to year.                                    |
| Istituto Aradico.....  | do.....            | By its own endowment.  |
| Istituto Marchi d'Istruzione con convitto.....                         | do.....            | By the tuition of its students.  |
| Collegio di Santa Maria.....   | do.....            | By the tuition of its students and the patronage of the Pope.  |



| Title.   | Location.     | How supported or patronized.   |
|--|---------------|--|
| Scuola Commerciale Femminile.....                                  | Rome.....     | By the municipality to the extent of 17,300 lire per annum.  |
| Istituto Massimo con convitto.....                                 | do.....       | By the tuition of its students and the patronage of the Pope.  |
| Istituto Ponteficio di Alta Letteratura.....                       | do.....       | Do.  |
| Istituto Tecnico F. S. De Merode.....                              | do.....       | Do.  |
| Liceo e Ginnasio di San Pietro in Vaticano.....                    | do.....       | Do.  |
| Liceo Ginnasio del Seminario Ponteficio.....                       | do.....       | Do.  |
| Istituto Angelo Romano.....  | do.....       | By the tuition of the students.  |
| Educatadi diretto dalle Dame del S. C.....                         | do.....       | By the tuition of its students and patronage of the Pope.  |
| Gould Memorial Home.....   | do.....       | By its own endowment and private contributions.  |
| Scuola Preparatoria alle Arti Ornamentali.....                     | do.....       | By the municipality to the extent of 14,600 lire per year.   |
| Scuola Superiore Femminile "Fua Fusinato,".....                    | do.....       | By the municipality to the extent of 33,840 lire per year.   |
| Regia Scuola Tecnica Femminile "Mariana Dionizi,".....             | do.....       | By its own endowment and partly by the tuition of students.  |
| Scuola Professionale Comunale Femminile.....                       | do.....       | By the municipality to the extent of 46,960 lire per year.   |
| Scuola Professionale Femminile "Teresa Chigi Torlonia,".....       | do.....       | By its own endowments, with an additional subsidy from the municipality of 11,100 lire per year.           |
| Collegio Convitto Provinciale.....                                 | do.....       | By the tuition of the student.   |
| Collegio Convitto "Angelo Mai".....                                | do.....       | Do.  |
| Collegio Ghislieri.....  | do.....       | Do.  |
| Collegio Nazareno.....   | do.....       | Do.  |
| Ospizio Margherita di Savoia (professional instruction).....       | do.....       | By its own endowment.  |
| Ospizio di Termini (professional school).....                      | do.....       | By the municipality to the extent of 295,000 lire per annum.   |
| Ospizio di San Michele (professional schools).....                 | Rome.....     | By its own endowment.  |
| Società Orticola Romana.....                                       | do.....       | By the contributions of the members.   |
| Società Generale dei Viticoltori Italiani.....                     | do.....       | Do.  |
| Regia Scuola Pratica di Agricoltura.....                           | do.....       | By the Comizio Agrario at Rome.  |
| Biblioteca Alessandrina della Regia Università.....                | do.....       | By the Government to the extent of 17,000 lire per annum.  |
| Biblioteca Angelica.....   | do.....       | By the Government to the extent of 5,400 lire per annum.   |
| Biblioteca Barberina.....  | do.....       | By its own endowment.  |
| Biblioteca Casanatense.....  | do.....       | By the Government to the extent of 17,000 lire per annum.  |
| Biblioteca Chigiana.....   | do.....       | By the family whose name it bears.   |
| Biblioteca Corsiniana.....   | do.....       | Do.  |
| Biblioteca Frankliniana.....                                       | do.....       | By private contributions.  |
| Biblioteca Lancisiana.....   | do.....       | By the Lancisiana Society.   |
| Biblioteca dell' Accademia di Santa Cecilia.....                   | do.....       | By the Accademia di Santa Cecilia, with an additional subsidy from the Government of 1,500 lire per annum. |
| Biblioteca Romana-Santi.....                                       | do.....       | By its own endowment, with additional subsidy of 4,900 lire from the municipality.                         |
| Biblioteca Vallicelliana.....                                      | do.....       | By its own endowments.   |
| Biblioteca Vaticana.....   | do.....       | By appropriations from the Pope, varying from year to year.  |
| Biblioteca Vittorio Emanuele.....                                  | do.....       | By the Government to the extent of 100,000 lire per annum.   |
| Biblioteca del Ministero degli Affari Esteri.....                  | do.....       | By a yearly appropriation of 6,000 lire from the Government.   |
| Biblioteca del Ministero d'Agricoltura, Industria e Commercio..... | do.....       | By a yearly appropriation of 8,000 lire from the Government.   |
| Biblioteca del Ministero di Grazia e Giustizia.....                | do.....       | By the Government with 6,000 lire yearly.  |
| Biblioteca del Ministero dei Lavori Pubblici.....                  | do.....       | By the Government with 5,700 lire yearly.  |
| Biblioteca del Ministero delle Finanze.....                        | do.....       | By the Government with 8,000 lire yearly.  |
| Biblioteca del Ministero della Marina.....                         | do.....       | By the Government with 7,000 lire yearly.  |
| Biblioteca del Ministero della Guerra.....                         | do.....       | By the Government with appropriations varying from year to year.   |
| Biblioteca del Ministero dell' Interno.....                        | do.....       | By the Government with 5,000 lire yearly.  |
| Biblioteca delle Direzione Generale di Statistica.....             | do.....       | By the Government with 2,000 lire yearly.  |
| Biblioteca dell' Università di Macerata.....                       | Macerata..... | By a part of the appropriation made to the university by the Government.                                   |
| Biblioteca dell' Università Israelitica.....                       | Rome.....     | By the university bearing the same name.   |
| Biblioteca dell' Università di Cagliari.....                       | Cagliari..... | By a part of the Government appropriation made to the university.  |
| Biblioteca dell' Università di Sassari.....                        | Sassari.....  | Do.  |
| Biblioteca dell' Università di Perugia.....                        | Perugia.....  | By the university.   |
| Biblioteca dell' Università di Urbino.....                         | Urbino.....   | Do.  |
| Biblioteca dell' Università di Camerino.....                       | Camerino..... | Do.  |

| Title.   | Location.    | How supported or patronized.                                    |
|--|--------------|---|
| Museo Capitolino e di Scultura.....                    | Rome.....    | By the municipality to the extent of 37,500 lire yearly.        |
| Museo Capitolino Etrusco Pinacoteca o Protomoteca..... | do.....      |   |
| Museo Lateranense Sacro e Profano.....                 | do.....      | By admission fees.  |
| Museo Vaticano Etrusco-Egizio.....                     | do.....      | Do.   |
| Museo Artistico Industriale.....                       | do.....      | By a yearly appropriation of 10,000 lire from the municipality. |
| Museo d'Istruzione o di Educazione.....                | do.....      | By the University of Rome.                                      |
| Museo Buoncompagni-Ludovisi.....                       | do.....      | By the family whose name it bears.                              |
| Museo Torlonia.....                                    | do.....      | Do.   |
| Museo Borghese.....                                    | do.....      | Do.   |
| Museo Kischeriano.....                                 | do.....      | By its own endowments.  |
| Museo Preistorico-Etnografico.....                     | do.....      | By a yearly appropriation of 7,500 lire from the Government.    |
| Museo Bоргiano.....                                    | do.....      | By its own endowments.  |
| Museo Nazionale di Antichità Romane.....               | do.....      | By a yearly appropriation of 20,000 lire from the Government.   |
| Museo Copernicano ed Astronomico.....                  | do.....      | By its own endowments.  |
| Museo dei Gessi.....                                   | do.....      | Do.   |
| Galleria Vaticana.....                                 | do.....      | By admission fees.  |
| Galleria Capitolina.....                               | do.....      | Do.   |
| Galleria Albani.....                                   | do.....      | By the family whose name it bears.                              |
| Galleria Barberini.....                                | do.....      | Do.   |
| Galleria Borghese.....                                 | do.....      | Do.   |
| Galleria Colonna.....                                  | do.....      | Do.   |
| Galleria Corsini.....                                  | do.....      | Do.   |
| Galleria Doria.....                                    | do.....      | Do.   |
| Galleria Lateranense.....                              | do.....      | By admission fees.  |
| Galleria di San Luca.....                              | do.....      | By the Accademia di San Luca.                                   |
| Galleria del Monte di Pietà.....                       | do.....      | By its own endowments.  |
| Galleria Rospigliosi.....                              | do.....      | By the family whose name it bears.                              |
| Galleria Tenerani.....                                 | do.....      | Do.   |
| Galleria Chigi.....                                    | do.....      | Do.   |
| Galleria Mattei.....                                   | do.....      | Do.   |
| Galleria del Quirinale.....                            | do.....      | By its own endowments.  |
| Galleria Spada.....                                    | do.....      | By the family whose name it bears.                              |
| Galleria Torlonia.....                                 | do.....      | Do.   |
| Galleria dell' Istituto di Belle Arti.....             | Urbino.....  | By the Istituto di Belle Arti.                                  |
| Galleria e Museo dell' Università di Perugia.....      | Perugia..... | By the University of Perugia.                                   |

## MEMORABLE DATES.

The territory known to-day as Italy has been subjected to the domination of Spain, France, and Austria at different periods of its history. Spanish rule predominated during the sixteenth and seventeenth centuries; Austrian at the beginning of the eighteenth; the French victories changed the Government between 1797 and 1814; Austrian rule was reestablished in 1814. In 1848 the Milanese and Venetians joined Piedmont; in 1859 the Austrians lost their hold, and the Kingdom of Italy, comprising Piedmont, Sardinia, Lombardy, Tuscany, Modena, Parma, the Romagna, Naples, and Sicily, was formed. In 1866 Venetia was ceded to Italy by Austria, and the kingdom was consummated, with Rome as its capital, in 1870.

In the Middle Ages and during the Renaissance Italy was the most brilliant center of literature and art in Europe. From the sixteenth to the eighteenth century, however, popular education—if one excepts a few celebrated institutions—was not greatly developed. The ministers and princes of the eighteenth century, animated with a spirit of reform, opened schools, notably the Emperor Joseph II, in Lombardy, by edict of 1786. During the period 1797–1814, when political affairs brought Italy and France more closely together, the obligation of maintaining elementary schools was imposed upon the communes of the Cisalpine Republic (1802) and the Kingdom of Naples. The fall of the

French Empire paralyzed educational efforts. Later, liberal ideas inspired the law of 1819 in the Neapolitan realm, the school regulations of 1818 in the Lombard-Venetian Kingdom, the decree of 1822 in the Sardinian States, which required each commune to maintain a gratuitous elementary school. The most memorable dates from the educational standpoint are the following:

- 1729 and 1772. Establishment of famous royal constitutions by princes of the House of Savoy through which the control of secondary education was taken away from the religious orders, and the Collegio delle Province, with one hundred free scholarships, was established with the aim of preparing, in connection with the university, teachers qualified to give this instruction. Schools of methods were established to prepare teachers for primary schools, and with the title of *Magistrato della Riforma* the germ of a well-organized council of public instruction appeared.
- 1786. Reorganization of rural schools in Lombardy, the decree stipulating for free schools for the poor.
- 1802. Sub-Alpine republics decreed that all communes should establish elementary schools.
- 1808. Schools reorganized in parts of Italy under French domination. Academies established at Turin, Genoa, and Pisa as integral parts of the University of France.
- 1813. Reorganization of public instruction in Rome.
- 1818. New school law promulgated in the Lombardian-Venetian Kingdom which in 1822 became the code of education for that part of Italy.
- 1844. Establishment of "*Asili d'Infanzia*" (infant schools) in Piedmont, which were the beginning of the well-organized school system.
- 1847. (Decree of November 30.) Office of minister of public instruction created.
- 1849. Establishment of "*Società d'Istruzione e d'Educazione*" in Lombardy-Venetia, which has been of great assistance in the organization of the present public school system.
- 1859. Promulgation of the "*Legge Casati*," or school law, named from the minister of public instruction at that date, which forms the basis of the present school system, as it provided that each commune should maintain an elementary school, that teachers should have certificates of capacity, that there be greater strictness in university examinations, etc.
- 1867. Religious corporations abolished and their schools classed as private. Other modifications of law of 1859 made.
- 1877. Instruction made obligatory for children between 6 and 9 years of age.
- 1878. Gymnastics placed on school programmes.
- 1881. Legal enactments reorganizing higher council of education and making changes in school supervision.
- 1885 and 1886. Legal enactments bearing upon teachers' salaries and teachers' licenses.
- 1887-1894. Reform movements in university education presented from year to year with intention of strengthening the larger university centers and abolishing others; commissions appointed to study subjects of physical education, textbooks, reform in elementary school programmes, etc. The "*licenza elementare*" was introduced in 1882, abrogated by Minister Villari in 1891, and reintroduced by Minister Baccelli in 1894. The minister of public instruction has revived his former scheme for bringing primary and secondary schools into relation with each other. Boys who have reached the fifth class of a primary school and can pass a qualifying examination receive a certificate which allows them to enter a secondary school without further difficulty. The "*licenza liceale*" is to be conferred, from 1894 on, upon students of "*ginnasi*" and "*licei*" who have successfully passed the required examinations.



## INDEX TO EDUCATIONAL INFORMATION ABOUT ITALY.

- The reports of the Commissioner of Education, from the year 1870 on, have contained information in regard to education in Italy. In the earlier years it was very meager; of late years more complete. An index of the matter is here presented. Annual Reports of Commissioner of Education.
- Medical schools, course of study in (1 to 6 years); industrial schools in 1868, statistics of. 1870, pp. 390, 442.
- Main points of school law (4 lines); statistics of schools, 1864-1868. 1871, p. 473.
- Detailed statistical presentation for 1871-72 of all grades, with statistics of special schools. 1872, pp. 496, 504.
- Tabulated statistics of universities; statistics of elementary and secondary education in 1872; evangelical school work; expenditures; illiteracy and penal institutions. 1873, pp. clxi-clxiii, clxxxv.
- Statistics for 1874; text with expenditure. 1874, pp. cxxxvii-cxxxviii.
- Students in Government and free universities in 1877; primary education compulsory; other statistics. 1875, 1876 (unimportant item); 1877, p. clxvi.
- Tabulated statistics of universities in 1877-78; education again made compulsory by law of July 15, 1877; technical schools supported by Government communes, religious corporations, and private persons; general statistics. 1878, pp. clxvii-clxviii.
- Italian educators sent abroad to study school systems of other countries; education by religious orders, 16,000 priests and members of religious orders being engaged in teaching in Italian schools. 1879, p. cxevi.
- Statement in tabulated form of illiteracy in 1861-1871, and of elementary schools and pupils from 1861-1879; of adult schools, female boarding schools, etc. This is prefaced by a statement regarding the present constitution of Italy, the fundamental law of public instruction, teachers' salaries, and the school budget. 1880, pp. ccxv-ccxx.
- Bill (of November 12, 1881) introduced to enforce school attendance of persons 14 to 16 years of age. 1881, p. cclviii.
- Statistics presented in tabulated form of schools, both private and public, for 1861-1881, with appropriations from 1871-1873, and a comparison made with other countries of Europe as to amounts appropriated; references are made to school law of 1877, which made instruction obligatory, and the number of communes carrying out the law are indicated. 1882-83, pp. ccxxx-ccxxxiv.
- Presentation of statistics for 1881-82, in which it is shown that out of 1,735,185 pupils registered only 232,929 presented themselves for examination, and only 166,185 passed satisfactorily. Reasons: Poor quality of teachers, poverty of people. Contents of circular of October, 1882, include examination from grade to grade, pupils graduating from third grade to attend evening school for a year, school inspectors to furnish annual list of children of school age to syndic, etc. 1883-84, p. ccxxvii.
- Statistics for elementary schools are presented from official reports for 1882-83, the second and higher schools for 1883-84. The length of the course of study in most institutions is given. The expenditures by State, provinces, and communes for elementary education are also presented. Illiteracy (in 1881) in different parts of Italy is also indicated. 1884-85, pp. ccxc-ccxcii.
- Statistics: Schoolage; population; enrollment in elementary schools; teachers; normal schools; expenditures; university statistics. 1885-86, pp. 726-732.
- Statistics of educational periodicals: Number of volumes, date of issue, how often published, price. Elementary statistics (as above): Name and title of chief officer of education. 1886-87, pp. 978, 1000-1004.



1887-88, pp. Educational periodicals tabulated as above; statistics for 1884-85 of elementary and normal schools.

1888-89, Vol. I, Course of study in normal schools; population and enrollment; elementary school statistics; religious instruction; school savings banks. First presentation of the school system, its general features; memorable dates in history; State and local supervision; teachers, their salaries and appointment; school management and organization; museums and libraries; statistical table.

1889-90, Vol. I, Statistics of enrollment: Ratio to population; per capita of population; pay or free schools. Diagrams: Ratio to population under school influence; universities, their foundation, number of students in 1890-91. Provision for industrial education. Character of exhibits at Milan exhibition for education and hygienic appliances; information appertaining to progress of education (one-half page); table of enrollment, expenditures, per capita of population and enrollment for 1888-89.

1890-91, Vol. I, The report for 1890-91 contains an essay on education in Italy by Prof. A. Oldrini, with supplementary matter by Signor Com-mendatore Bodio, the director of the statistical bureau in Rome.

These essays on education in Italy include information concerning illiteracy—courses, percentages: Kindergartens, primary education, progress of schools since enactment of law for compulsory education in 1877. Secondary education (ginnasi and licei, technical schools and institutes): Rural, agricultural, industrial, and normal schools. Superior and special instruction: Universities, programmes and pending reforms, special schools and academies, academic institutes. Fine arts; libraries; the press; budget of public instruction in 1889-90. Information supplementary to above: Illiteracy in 1891 by territorial subdivision; infant schools; elementary education in 1871-72, in 1881-82, and in 1891-92; normal schools; secondary schools; statistics for different years; education of women; agricultural education; industrial, professional, and commercial education. Superior and special studies; academies of science and literature, fine arts, museums, antiquities, national monuments, libraries with statistics to 1890-91. Publications according to subject-matter. General provincial and municipal school administration. Maintenance and expenditure for educational institutions in 1889. Statistical presentation of youth below universities, in elementary, secondary, and higher schools, with percentages; expenditures per capita of pupils and population. Legal education, with statistics of law schools. Growth of the kindergarten.

An. Rep. 1891—No information from Italy.

92. An. Rep. 1892—Expenditures; school attendance; Cavour's efforts; compulsory education; instruction in agriculture; education of women; schools for soldiers; music and the fine arts; medical requirements; statistics of education.

An. Rep. 1893—Monograph on public instruction in Italy, by Prof. B. A. Hinsdale.

94, pp. 325-383. Topical outline: Unification of Italy; educational conditions in 1861; general political facts; the Casati law and the administration of public instruction; description and statistics of different grades of schools, from kindergarten to university and special schools; the school supply; teachers; financial status; public schools of Rome during twenty years; warfare against illiteracy; summary and conclusion.

## CHAPTER XIII.

### REPORT OF THE ROYAL COMMISSION ON SECONDARY EDUCATION.

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**TOPICAL OUTLINE.**—*Constitution and purpose of the commission.*—Principal recommendations: The central authority; the new local authority; the registration of teachers.—Additional recommendations: Means of increasing the efficiency and extending the province of existing secondary schools; service of inspection and examination; classification and curricula; coeducation; noninterference with religious convictions; stable policy as regards the salaries of assistant teachers.—Provision for classes not at present reached by secondary schools by means of scholarship funds; classes; mode of obtaining; value; means of restricting.—Financial resources of secondary schools.—Number of secondary students.—Extracts from the historical sketch: Preceding commission.—Recommendations of the Schools Inquiry Commission.—Legislation growing out of the same.—Agencies for fostering secondary instruction; public, private (voluntary).—The State as a factor in secondary education.—Considerations relating especially to the secondary education of girls.—Women as administrators of public trusts.—Digests of evidence by representative witnesses summoned before the commission.

#### CONSTITUTION AND PURPOSE OF THE COMMISSION.

As regards England, the event of most importance in educational circles is the publication of the report of the royal commission on secondary education. The commission was appointed in March, 1894, and has accomplished its work with unusual dispatch. One hundred sessions were held, 85 witnesses examined (besides a great number of returns), and the report was ready to be submitted to Government in August, 1895. All educational interests—the universities, secondary schools, private and endowed elementary schools, school boards, teachers' associations, etc.—were represented in the membership.<sup>1</sup> More-

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<sup>1</sup> The members were as follows: Mr. James Bryce, chairman; Sir John Hibbert, secretary to the treasury; Hon. Edward Lyttelton, M. A.; Sir Henry Enfield Roscoe, D. C. L.; Dr. Edward Craig Maclure, D. D.; Andrew Martin Fairbairn, D. D.; Prof. Jebb. Litt, D. D., C. L.; Dr. Wormell, D. Sc.; Mr. Henry Hobnouse, M. A.; Mr. M. E. Sadler, M. A.; Mr. H. Llewellyn Smith, M. A.; Mr. M. G. Cockburn, chairman of the Leeds school board; Mr. C. Fenwick, Mr. James Henry Foxall, Lady Frederick Cavendish, Mrs. Sophie Bryant, D. Sc.; Mrs. Eleanor Mildred Sidgwick.

over, it was distinguished from all preceding commissions by the presence of women. The royal commission is the third appointed to deal with secondary education since 1860, at which time the Government began to turn its attention seriously to the subject. The necessity for the commission arose from conditions that are inherent in the educational policy of Great Britain—first, a multiplicity of unrelated agencies with consequent overlapping and waste of resources; second, unequal distribution of schools and, more especially, inadequate provision for the secondary education of the poorer classes. This confusion and inequality, corrected in some directions by legislation growing out of the recommendations of the commission of 1864, has been aggravated in others by impulses from the same source.<sup>1</sup> The commission was charged to devise measures for overcoming these evils. In the language of their order, they were—

to consider what are the best methods of establishing a well-organized system of secondary education in England, taking into account existing deficiencies and having regard to such local sources of revenue from endowment or otherwise as are available or may be made available or may be made for this purpose, and to make recommendations accordingly.

The persons examined by the commission represented all the various agencies and the clashing interests affected by the inquiry, together with a fair number of impartial but experienced witnesses; the digests of evidence appended<sup>2</sup> give a graphic picture of the peculiar complications with which the commission had to deal; their own report, with the recommendations, illustrates in a very striking manner the traditional conservatism of English policy.

#### PRINCIPAL RECOMMENDATIONS OF THE COMMISSION.

The immediate outcome of the labors of the commission is found in their recommendations. While discussing incidentally phases of secondary education not distinctly named in their instructions, they kept always in view the specific purpose of their mission, and their recommendations, presented under five heads and comprising 160 propositions, all relate either to organization or to the means of increasing the provision or efficiency of secondary instruction.

Three distinct departures from the present policy are involved in these recommendations. Two of these pertain to organizing authorities, the third to the efficiency of instruction. Briefly stated, these are: (1) The recommendation to create a ministry of education, i. e., "a department of the executive government, presided over by a minister responsible to Parliament, who would obviously be the same minister as the one to whom the charge of elementary education is intrusted;"<sup>3</sup> (2) the constitution of a new local authority for secondary education;

<sup>1</sup> See extract from Historical Sketch, Report of the Commission, vol. 1, on page 598.

<sup>2</sup> See pp. 605.

<sup>3</sup> Report of commission, vol. 1, p. 257.

(3) a scheme for the registration of teachers applicable to teachers of all classes.

While these measures are departures, they make no violent break with the past; they are one and all in the line of recommendations made by the commission of 1864,<sup>1</sup> and have been formally proposed to Parliament from time to time, notably the proposition for a ministry of education, which seemed very near realization during Mr. Mundella's administration of the department of education.

*The central authority.*—If constituted in the manner recommended, the ministry would be simply an expansion of the education department, with absorption of the science and art department and a transfer from the charity commission of the duty of dealing with educational endowments controlled by the law of 1869.

The minister would be assisted by a permanent secretary familiar with all the details of the system. Little direct executive power would be entrusted to the central authority; its function would not be "to control, but rather to supervise," not to override or supersede local action, but to bring about "harmony and cooperation" among the various local agencies. With respect to the constitution of local bodies, the revisions of schemes for endowed schools, the location of new schools, the conduct of examinations and inspection, and in general in questions of dispute between local authorities, the central body would have large advisory and judicial scope. It would moreover have general control of all State funds for education and of nonlocal endowed schools and power to constrain local authorities to make due provision for secondary education.

The need of professional advice in respect to nearly all the questions which would come before the minister is distinctly recognized, and is met by an educational council somewhat similar to the French superior council of public instruction. In recommending this feature the commissioners observe:

There will be some matters, however, in which the counsel of persons specially conversant with education and holding an independent position may be so helpful, and there will be some duties in their nature so distinctly judicial rather than executive, as to make it desirable to secure for the minister the advice of persons not under his official direction. There will, moreover, be some work to be done in a central educational department so purely professional as to belong rather to an independent body than to a department of state. For these purposes we propose that there be created an educational council which may advise the minister in the first-mentioned class of matters and in appeals, while such a professional function as the registration of teachers might be entirely committed to it.<sup>2</sup>

The council would be much smaller than the French council (12 members as against 60), the same to be appointed or chosen as follows:

One-third appointed by the Crown, one-third by the four universities of Oxford, Cambridge, London, and Victoria (1 member by each), and one-third selected by the

<sup>1</sup> See extracts from Historical Sketch, p. 598.

<sup>2</sup> Report of Commission, vol. 1, p. 258.



rest of the council from among experienced members of the teaching profession. The term of office is put at six years, and arrangements ought to be made which would prevent all the members from going out of office at the same time, so as to secure the continuance and transmission of experience and a certain permanence of policy.

#### THE NEW LOCAL AUTHORITY.

The question of organizing and unifying local authorities was much more intricate than that of the constitution of a central authority. Existing agencies having vested interests and charter rights could not be ignored; jealousies and opposition were sure to be stirred up whatever new agency might be proposed. Two public representative bodies are already in the field, one the elected school boards, whose function is purely educational; the other, the county and county borough councils, created by the local government act of 1888. The former, although legally confined to elementary education, have brought about an "extension of the parliamentary grant to higher grades," in fact have shown their ability to organize high schools. In rural districts, however, school boards are not at present available. As determined by the education law of 1870, the district for the election of a board (except in the metropolis) is either (1) a municipal borough or (2) a civil parish. The population with which a school board deals varies anywhere from less than 250 to 5,000 and upward. Fully 23 per cent of the districts, chiefly rural, comprising nearly one-third of the total population, have had no election of boards. It is in the great commercial and manufacturing centers that their influence has been powerful.

The county and county boroughs are permanent administrative areas recently created to avoid just such complications in other civil affairs as are now embarrassing education. In accordance with the local government act of 1888, England and Wales were divided into 60 administrative counties and 61 county boroughs, having each more than 50,000 inhabitants. These, with the county of London, which was treated distinctly, made 122 new areas for local self-government. The supreme authority in each area is a council elected every three years. The right to levy a rate of a penny in the pound for technical education, conferred upon the councils by a law of 1889, and the act of the following year placing at the disposal of the councils the surplus of the duties on spirits, about \$3,000,000 annually, with the privilege of applying the same to education, made the councils the chief public agents for fostering secondary education. In the boroughs they are not more powerful than the school boards; their supremacy is in the rural areas.

So much is necessary to understand the sense in which the new agency recommended by the commissioners is simply a compromise. According to the recommendation there would be "a new local authority for secondary education in every county and in every county borough, that is to say, speaking generally, in boroughs with a population exceeding 50,000." This body, which for convenience may be

termed a county or a county borough board, would comprise not less than 14 nor more than 42 members. The composite character of the boards is illustrated in the typical cases presented in the report:

Taking 28 as the number for one of the larger counties, the body would be formed somewhat as follows:

|                                    |    |
|------------------------------------|----|
| Chosen by the county council ..... | 16 |
| Chosen by the central office ..... | 4  |
| Co-opted by the above .....        | 8  |

and of the 12 not chosen by the county council several ought to be taken from persons actually or recently engaged in teaching.

Members appointed by a county council ought to hold office for the term of office of the council; other members for a term of five years.

The county borough authority, comprising from 12 to 24 members, would be formed as follows:

The borough council and the school board should each appoint one-third of the members, being free to select those persons either from within or from without its own body. Of the remaining one-third of the members, one-half, or one-sixth of the whole, ought to be nominated by the central office after communication with any university or university college or colleges which may be situate sufficiently near the borough or may otherwise be so connected with it as to be capable of influencing its education. Should the borough, however, contain a university college, this one-sixth of the whole might be left to be appointed directly by that college. The other one-sixth of the whole ought to be co-opted by those previously chosen.

#### The commissioners add:

Here, as in the case of the county authority, we think that the power of co-optation and that of appointment by the central office may fitly be required to be used so as to secure for the local authority the benefit of that special experience which teachers possess.

Members appointed by the borough council ought to hold office for three years; those appointed by the school board for the term of the board that appointed them; other members for five years.

On account of the important agencies already operating in London, a special constitution of the local authority is recommended as follows:

|  |    |
|--|----|
| Appointed by the county council .....                                | 18 |
| Appointed by the school board .....                                  | 7  |
| Appointed by the City and Guilds Institute .....                     | 2  |
| Appointed by the city parochial charities trustees .....             | 2  |
| Appointed by the universities of Oxford and Cambridge (1 each) ..... | 2  |
| Appointed by the University of London .....                          | 2  |
| Co-opted by the other members .....                                  | 9  |
| Total .....  | 42 |

Here again the commissioners emphasize the importance of having the teaching profession well represented, and, further, that a certain number of the members "be selected from among persons possessing special knowledge of London industries, whether as employers or as workmen."<sup>1</sup>

<sup>1</sup> Report of commission, vol. 1, pp. 268-271.

It is significant that the commissioners specially urge the appointment of women on these local boards. They say:

We think that women ought to be eligible for appointment (whether by a public authority or by cooptation) upon both sets of authorities, and that it is, indeed, desirable to provide that a certain number shall be women, as experience seems to have shown that the interests of girls often receive insufficient attention, and that there is also a risk that women may not be chosen unless some special provision for their presence be made.<sup>1</sup>

The functions of the new local authorities, as briefly epitomized by the commissioners, would be—

(1) The securing of a due provision of secondary instruction.

(2) The remodeling, where necessary, and supervision of the working of endowed (other than nonlocal) schools and other educational endowments.<sup>2</sup>

(3) A watchful survey of the field of secondary education, with the object of bringing proprietary and private schools into the general educational system, and of endeavoring to encourage and facilitate, so far as this can be done, by stimulus, by persuasion, and by the offer of privileges and advice, any improvements they may be inclined to introduce.

(4) The administration of such sums, either arising from rates levied within its area or paid over from the national exchequer, as may be at its disposal for the promotion of education.<sup>3</sup>

None of these functions, however, is to be arbitrarily exercised. While on the one hand the local authority will be constrained by the central to see to it that the provision of secondary instruction in its area is sufficient, on the other, its measures, whether for the remodeling of old schools or the creation of new, will be subject to the revision of the central authority. The endowed or publicly supported schools which come under the jurisdiction of the local authority will remain under the immediate charge of their own administrative bodies, and although any local authority giving aid to such schools is entitled to representation on the governing body, the representation will be carefully limited.

The endowments with which the local authority may deal yield about £830,000 annually for education—the proceeds from the duties on spirits, about £748,000, to which would be added £650,000 if the local authority universally exercised its right to levy an education tax. This would give a sum of about \$10,750,000. This power of the purse would not be unlimited, as the accounts of the local authority are “to be annually audited by some person appointed by a department of Government.”

It should be noted that the seven<sup>4</sup> great public schools of England are not included in the educational endowments with which the local authority would deal. These, however, would be brought within the

<sup>1</sup>Vol. 1, p. 272.

<sup>2</sup>See Digests of Evidence, p. 605.

<sup>3</sup>Vol. 1, pp. 272, 273.

<sup>4</sup>These are colleges of Eton and Winchester and the schools of Westminster, Charterhouse, Harrow, Rugby, and Shrewsbury.”



scheme for coordinating secondary schools through the supervisory powers conferred upon the central authority.

Provision is made for bringing private schools under the general supervision of the local authority by extending to them "the benefit of public examinations and of scholarships and other auxiliary funds supplied from public sources, in return for which they would be expected to submit to a certain amount of public supervision." Moreover, in respect to a matter intimately concerning the public welfare—sanitary inspection—the commissioners recommend that the local authority be empowered to cause all schools, whether endowed (or in any other sense public), proprietary, or private, within its area to be inspected as respects the sanitary condition of their buildings and class rooms, and to require them to conform to such general regulations for securing health as may be issued by the central office, which, in case of refusal to so conform, should have power to direct any insanitary school buildings to be no longer used for school purposes, subject, however, to an appeal on the part of the owner or occupier of such buildings to the central office.<sup>1</sup>

#### THE REGISTRATION OF TEACHERS.

The cautious treatment of the province of local authorities is in striking contrast to the decided policy advocated by the commissioners in respect to the registration of teachers. Here they have gone directly against the narrow prejudices which have isolated elementary education from the higher grades. They stand for the unification of all scholastic work and the placing of all teaching on a distinctly professional basis.

Their proposition is simple, namely, that there shall be one register, open alike to all teachers, from a private governess to a head master, provided they fulfill the required conditions. These are: (1) A degree, or a certificate of general attainments, granted by some university or body recognized for that purpose by the registration authority and accepted as satisfactory by that authority; and (2) a certificate or diploma of adequate knowledge of the theory and practice of education granted by a university or body recognized as above;<sup>2</sup> that is, scholarly attainment and professional training.

In elaborating their views they make it clear that they have secondary teachers chiefly in mind; for instance, they propose to relax the severity of the admission standard in the case of "persons who have been engaged in teaching in secondary schools for three years before the passing of the act who produce to the educational council satisfactory evidence of intellectual acquirements and competence to teach."<sup>3</sup> And again they advise "that, after the lapse of a reasonable time—say, seven years after the establishment of the register—no unregistered

<sup>1</sup> Vol. 1, p. 278.

<sup>2</sup> Vol. 1, p. 319.

<sup>3</sup> Ibid., p. 320.



person should be allowed to be appointed as a teacher of a public secondary school or of a school recognized by the local authority as contributing to the supply of efficient secondary education."<sup>1</sup>

There is nothing, however, to exclude elementary teachers from the register, and the proposition as it stands is regarded as a victory for that class. The National Association of Elementary Teachers has long contended for such a measure, and before the commission their representatives urged it with great and evidently convincing force. We may trace also an influence from the elementary system in the commissioners' demand that teachers shall have professional training. While not committing themselves to any particular policy in this respect, they evidently regard the universities as the proper centers for this work.

As regards general education they say, unreservedly, teachers "will obtain it, and in our view ought to obtain it, not in special seminaries, but in the same schools and universities as are resorted to by persons desiring to enter the other professions."<sup>2</sup>

As regards professional training, which the commissioners hold should include "both a theoretical and a practical side," they would not intrust the provision to "local authorities, because their sphere of action is not sufficiently wide," nor, on the other hand, "to the central office, because that might induce an undesirable uniformity," but in the interests of freedom and variety would urge the universities "to take up the task, as has been done in two Scottish universities, and very recently in Durham." They add: "If the science of education is to make good the claims put forward on its behalf, it ought to be studied where other branches of mental and moral philosophy are fully handled by the ablest professors. In speaking of universities we include the leading university colleges."<sup>3</sup>

The dignity, independence, and uniformly high standard of the registration is secured by committing it wholly to the educational council.<sup>4</sup>

#### ADDITIONAL RECOMMENDATIONS.

The most important question before the Commission was that of extending the provision of secondary education. This is indeed the purpose in view in the creation of new organizing authorities, and it is evidently the sense of the commission that the actual means of accomplishing the end desired must be left to the judgment of these authorities exercised in view of particular circumstances. However, under the general head of "Arrangements for the better organization of schools," the commissioners deal more directly with the problem of increasing both the efficiency and the quantity of secondary instruction.

For a complete understanding of the recommendations under this head it would be necessary to consider the constitution of existing schools more fully than is here desirable. I shall, therefore, note only certain suggestions or opinions of very general interest.

<sup>1</sup> Vol. 1, p. 320.

<sup>2</sup> Ibid., p. 321.

<sup>3</sup> Ibid., p. 323.

<sup>4</sup> See Historical Sketch, p. 598.

## MEANS OF INCREASING THE EFFICIENCY AND EXTENDING THE PROVINCE OF SECONDARY SCHOOLS.

*Service of inspection and examination.*—In discussing the functions of the new local authorities the commissioners specify in particular the maintenance of a service of inspection.

It will be desirable [they say] that the central office should issue a list of persons qualified by professional experience or otherwise specially competent to act as inspectors, and that local authorities, who may often with advantage combine for this purpose, should either select from this list those whose services they need or from time to time may submit to the central office for its approval the name of some other person whom they wish to be permitted to employ. As in our view it is better that the power of inspection should rest with the local rather than with any central authority, we conceive that it is by the local authority the inspector should be chosen, though the difficulty such an authority may experience in finding fit men points to the formation of such a list as we have suggested.

They are particular also to make it clear that the inspection contemplated is something different—

from the inspection maintained in the elementary schools. All that they deem necessary for the local authority to secure is a report from a competent hand upon the general condition and equipment of each school, including particularly the number and qualifications of the teaching staff.<sup>1</sup> \* \* \*

Returning again to this subject when discussing the actual organization of schools, the commission observes further:

In selecting persons for these posts great weight ought to be given to previous experience in teaching; and duly qualified women should be chosen where there is likely to be sufficient work for them. The appointment of such inspectors should, we think, be made independent of any limit of age. This rule, which is contrary to the present practice of the education department, would often enable the local authority to secure a man of greater educational experience than can be done under the present system. The local authority should have power to appoint a separate inspector to conduct the sanitary inspection if they prefer so to do.<sup>2</sup> \* \* \*

Where there is a scheme [for carrying out the terms of an endowment] the inspector should see that its various requirements as to the constitution and meetings of the governing body, the keeping of accounts, scholarships, examinations, etc., have been duly complied with. He should also in all cases require the production of the school time-table, and see that it sufficiently provides for instruction in the subjects of the curriculum as presented by the scheme. He should satisfy himself that the teaching staff of the school is sufficient both in number and attainments for the work that it claims to do, and that the equipment and apparatus are suitable and sufficient. It would further be desirable that he should also be present at the teaching of, at any rate, the principal classes, so as to form a just appreciation of the practical qualifications of the teachers, without in any way interfering with the course of instruction given.<sup>3</sup>

With respect to the last point, the commissioners are careful to add:

In view of the disquiet which a general enforcement of such a rule might at first excite, we are not prepared to say that this should be deemed essential.<sup>4</sup>

<sup>1</sup> Report of commission, vol. 1, p. 279.

<sup>2</sup> Ibid., p. 306.

<sup>3</sup> Vol. 1, p. 305.

<sup>4</sup> Ibid., p. 279.

Examination is treated as a separate service.

Each school or a certain portion of the scholars, the commissioners urge, should be annually examined by some independent and competent person, but this may under proper regulations (to be framed by the central office) be allowed to be done at the instance of the schools themselves.

It is of interest to note in this connection that in respect to the means of determining the efficiency of secondary schools the commission sought to profit by the experience of other countries. From France and Germany, in particular, memoranda were obtained setting forth very fully their policies in this respect. The measures finally recommended by the commissioners, however, show little tendency to copy from these, and are evidently framed with a careful regard to the independence and individuality which is the pride of English secondary schools.

*Classification and curricula of schools.*—Coming directly to the subject of school provision, the commission consider first the classification of secondary schools. According to English ideals this is inextricably involved with differences of curricula arising from the different social conditions of students. So far from recommending a uniform course upon which all secondary students should enter, the commission recognize the necessity of distinguishing between students of the "humble stratum, who must leave school at about 14 years to earn their living in shops or warehouses, or in some industrial occupation;" "those who will remain till about 16 and then enter upon professional courses or the higher walks of communal life," and those who remain till about 18 years of age and are likely then to enter the universities. In this classification they follow, although with confessed reluctance, the lines laid down by the commission of 1864.<sup>1</sup> As regards the actual curricula for these three types, under a due regard for the traditional independence of English headmasters they refrain from any explicit instructions. Their general conception of the scope of secondary studies is expressed as follows:

It is agreed—

That besides that literary and humanistic course of instruction, based upon the languages of classical antiquity which tradition has established among us, and whose incomparable value no thoughtful man denies, ample provision must be made in schools for scientific teaching, beginning if possible with natural history and the other sciences of observation and working up into chemistry and physics. It is further agreed that mathematics, while more closely allied to scientific subjects, ought to enter also into a literary course; that the chief tongues of modern Europe ought to be studied, not only as instruments of linguistic training but as the keys to noble literatures; and that full opportunities to boys and girls to prepare themselves for the particular occupations which they intend to follow in after life, whether industrial or commercial, ought to be supplied by the teaching of the practical arts, such as the elements of applied mechanics and the subjects connected with agriculture, as well as of modern languages and of the kinds of knowledge most useful to the merchant or trader. These three elements, however, which we

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<sup>1</sup> Vol. 1, pp. 282, 283.



may call the literary, the scientific, and the technical, may be combined in a great variety of forms and proportions. Experience alone can show which forms and which proportions are most likely to be absolutely best—we will not say as a scheme of intellectual training, but even as fitted to the needs of particular classes of persons inhabiting particular areas and engaged in particular kinds of industry. \* \* \*

Each of the three elements above named has vigorous forces behind it. Not merely tradition, but the influences of imagination and philosophy commend the first. The second is strong in the pride of its recent triumphs and still swift advance. The sense of its practical utility in days when industrial and commercial competition grows constantly more severe is enough, perhaps more than enough, to secure its rightful place for the third. All have in one view a claim to be considered in the course of studies of every secondary school, and the last of the three will thrive all the better if the two former receive their fitting meed of recognition. Technical instruction must be considered not as the rival of a liberal education, but as a specialization of it, which, whether it comes earlier or later in the scholar's life, ought to be as far as possible made a means of mental stimulus and cultivation, and will be most successfully used by those whose intellectual capacity has been already disciplined by the best methods of literary or scientific training.<sup>1</sup>

*Coeducation.*—The question of coeducation was very thoroughly examined by the commission, with the result that they advocate its further extension. Many difficulties of organization, they say,

may be obviated, especially where the number of pupils in a school or a department of a school is comparatively small, and some educational advantages secured by establishing schools in which boys and girls are educated together. This system has been tried with so much success in other countries, and to some extent in Great Britain itself, that we feel sure its use may be extended without fear of any undesirable consequences and probably with some special advantages for the formation of character and general stimulus to intellectual activity. Such a school may be organized either as a mixed school, the boys and girls being taught in the same classes throughout, or as a so-called "dual" school, having two distinct departments, but with a common staff and arrangements under which some subjects are taught to both sexes together.<sup>2</sup>

And again:

Some difficulty will no doubt arise in making adequate provision for the secondary instruction of girls in rural districts, owing to the fact that in many places the number of pupils to be looked for will not be sufficient to justify the creation of a separate girls' department either in an existing endowed school or in a secondary department to be attached to an elementary school. In these cases we think that the same school or department ought to receive both boys and girls, and the evidence we have received leads us to believe that this may safely and properly be done. We conceived that the duty and the interest of the community require equal provision to be made for both sexes, and although care may be needed in the conduct of the requisite arrangements, especially at starting, we are persuaded that the objections to a system of coeducation are slighter than those which would apply either to feeble separate departments or to a neglect of the needs of girls in cases where their number might be comparatively small.<sup>3</sup>

*Religious instruction.*—The absence of any recommendation touching religious instruction is particularly noticeable at this time, when excitement over the subject as related to elementary schools is intense. It is significant that according to the commissioners the religious difficulty

<sup>1</sup> Pages 284, 285.

<sup>2</sup> Vol. 1, p. 285.

<sup>3</sup> Page 297.



is "extremely rare" in English secondary education, and in avoiding the subject they are following the trend of educational legislation in England, which so far has been to "remove all just causes of offense or friction, and to secure as far as possible that differences of religious belief shall not unduly restrict the diffusion of educational benefits."<sup>1</sup>

Among the recommendations for improving the quality of secondary instruction not the least significant are the following relative to teachers' salaries:

In all public secondary schools we recommend the adoption of the provision usual in schemes under the endowed schools acts, that the salary of the head teacher shall be determined by scheme, and shall consist partly of a fixed yearly sum and partly of a capitation payment for each scholar in the school, variable by the governors within certain limits.

The method of fixing the salaries of assistant teachers should vary slightly according to the plan adopted for their appointment and dismissal, but the ultimate responsibility in the matter should rest with the governing body. Thus, where the appointment and dismissal are in the hands of the governors, the salaries should be determined by them, though here also they should be required to consult the head teacher. Where the head teacher has the right, however limited, to appoint and dismiss, the governors should fix the aggregate yearly amount or proportion of the income of the school to be applied in payment of the assistants' salaries, while the head teacher might, but always subject to the approval of the governors, determine the amount to be paid to each teacher.

With respect to women teachers the commissioners advocate a much more liberal policy than has hitherto prevailed. On this point they submit that—

Even when mistresses are as well qualified, academically and professionally, as masters, it nevertheless constantly happens that their standard of remuneration is fixed too low. This has a depressing effect on the educational profession as well as on the schools themselves, and although the matter is one for which positive recommendations can hardly be made, we may express the hope that the authorities of schools will deal more liberally than has hitherto been often the case with women teachers, and that, in fixing the scale of fees and the proportion of endowments to be attributed to their salaries, regard will be had to the desirability of encouraging, both by good salaries and by prospects of promotion, the entrance of the most capable women into the work of teaching.<sup>2</sup>

*Provision for classes not at present reached by secondary schools.*—Whatever advantage may result from the improvement of existing schools, it is evident that such measures alone will not suffice to extend the provision of secondary instruction to the classes now practically excluded from its benefits.

It was believed in many quarters that the time had come for advocating a system of free secondary schools, supported and controlled by the public. The experience of many school boards seems to prove the feasibility of such a measure. But the golden opportunity, if such it was, has been thrown away by the commission; so far from recommending a free system of public high schools, they distinctly advise against providing free secondary education to the whole community.

<sup>1</sup> Vol. 1, p. 75.

<sup>2</sup> Vol. 1, pp. 317, 318.

In place of a policy so democratic, they seek to devise means for enabling selected children of the poorer parents to climb the educational ladder.

*Scholarship funds.*—This is to be accomplished by means of scholarship funds. These, in the judgment of the commission—

should be of one or more of the following kinds, the kind to be determined, where the scholarships are founded by the local authority, at the discretion of that authority:

(1) Some should be open to children being educated in the ordinary “standards” of public elementary schools within the local area.

(2) Others should be awarded to children who are receiving their education at a so-called higher grade elementary school, or a secondary school (whether public or private) of a less advanced type than the school at which the scholarships are to be tenable.

(3) Others again might be open to all children attending any schools within the area of the local authority, or whose parents reside or are employed within the area.

(4) In some localities it may also be advisable to have scholarships open to all children free from any restrictions as to school or residence, but subject to suitable conditions as to age and the means of the parents.

It is especially recommended that—

provision should everywhere be made for both boys and girls, and where the same scholarships are open to both sexes care should be taken that a fair proportion, with regard both to the number of candidates and the comparative excellence of their work, is awarded to each sex.

As a rule the scholarships should be obtained by competitive examination. In case of scholarships attached to a public elementary school the commissioners advise that they—

be awarded either by competitive examinations held at the school, or, where this is considered undesirable on account of the tender age of the children or for other reasons, upon the joint recommendation of the head master and of the school board or school managers, to the scholars whose record of work is best for a series of school years or quarters, or by a combination of the two methods.

The commissioners add:

With respect to competitive examinations generally, we consider they should be restricted as far as possible to scholars above the age of 12, and that the examination, if at all applied below that age, should be of a very simple character. Even where the scholarship examination is held for children of a more advanced age, it should, we consider, be restricted to a limited number of subjects, should include a considerable amount of viva voce questioning, and should be directed principally to ascertaining the general intelligence of the candidates rather than the extent of their acquired knowledge. The importance, however, of insisting on these conditions, especially the two former, will tend to diminish as the ages of the candidates increase, and if any rules can be framed under which weight could be given to the health and physical condition of the candidates sufficient to avert the danger now sometimes felt of unduly pressing children forward and developing their brains at the expense of their bodies, the effect of such rules might be very salutary. We do not, however, think that this excellent object could be attained, as has sometimes been suggested, by allowing marks for proficiency in games, for that would induce another and not less mischievous kind of overpressure.

As to the value of scholarships, it is recommended that they—

be of several different kinds, viz: (a) Those which cover the cost only of instruction, with or without traveling expenses; (b) those which cover the necessary cost of board and lodging, as well as of instruction; and (c) those which consist of an annual payment of a fixed amount, either exclusive or inclusive of free boarding. Special judgment and caution will of course be required in awarding those of the two latter classes.

As the lack of secondary schools available for the poorer classes is one of the special evils which the commission was to remedy, it becomes necessary to limit the scholarships in some measure at least to those classes. This is to be done (1) by a provision augmenting the value of a scholarship according to the pecuniary circumstances of the holder, at the discretion of the local authority on the governing body of the school; (2) inquiry by the local authority into the circumstances of parents whose children are candidates for scholarships founded by local authority out of its own funds and intended for the children of poorer parents.

Different tests of pecuniary circumstances [say the commissioners] should be applied for different classes of scholarships. Thus, e. g., free education in a third grade secondary day school may be somewhat freely given to children of the wage-earning class, or to those belonging to families of equally restricted means; whereas a higher line, such perhaps as that now drawn for abatements of income tax at incomes of £500 a year, may fairly be drawn, if the local authority approve, in the case of candidates seeking aid from public sources to enable them to attend some place of higher education.

Fear that scholarships intended for the poor should be monopolized by the well-to-do is not groundless. This has been the fate of many such funds in the past, and the need of guarding against it is emphasized by the commissioners.

It has been brought to our notice [they say] that there are many scholarships of considerable value belonging to existing foundations, especially those of a nonlocal character, which are legally open to children of all classes. Some complaint has been made that the holders of these scholarships, having ceased to be deemed, as they once were, socially inferior to their schoolfellows, are now to a large extent drawn from the children of well-to-do parents, whose superior means have enabled them, by a special course of training at an expensive preparatory school, to secure the scholarship over the heads of their less fortunately situated competitors. We consider this practice, which tends to become more and more common, ought to be checked in the interests of public economy. But we do not think it would be either fair or wise to exclude altogether the children of well-to-do or even of wealthy parents from the laudable ambition of winning the distinction conferred by a scholarship, or from the right of sharing, together with other classes of the community, in the superior educational advantages often attaching to its possession. There are also, as we have pointed out elsewhere, grave objections to the present system on the ground of the unhealthy competition it induces and the disadvantages it imposes on the smaller and poorer schools. We therefore recommend that these scholarships should continue to be legally open to all classes, but should be restricted to a comparatively low value, the governing body of the school being intrusted with a discretion to augment their value in the case of any individual scholar if they should consider that such augmentation is required by the pecuniary circumstances of his



or her parents. We moreover consider that, in view of the difficulties in the way of individual schools carrying out such a reform by themselves, it should be required by a general statutory enactment.<sup>1</sup>

*Financial resources of secondary schools.*—The difficulties in the way of securing an adequate supply of secondary schools, and more particularly the uniform distribution of the provision, are brought to view in the attitude of the commission with respect to financial resources; virtually they leave this part of the problem where they found it, excepting so far as it is made to depend upon the will of the new local authority.

The extent [say the commissioners] to which public opinion will encourage the local authorities we have recommended to establish new schools or to develop those which exist, and the amount of popular support they will receive if they show themselves forward in this work, can not be conjectured beforehand, and will doubtless differ materially in different parts of the country. So will the scale of expenditure which those local authorities may be disposed to adopt. So will the readiness of parents to pay a fair price for the instruction provided, and thereby to increase that part of the school revenue which fees may be expected to supply. The possibility of turning endowments to better account, the prospect of making the various sums which are derived from the national exchequer go further than they do as now administered, the disposition of localities to rate themselves, are all of them matters more or less conjectural in any given district in the country, and still less capable of definite prediction as regards the whole country. We can not, therefore, undertake to establish an exact balance between probable income and probable expenditure. The most we can attempt is to present a view of the several funds now available, and to point out in what ways they may best be used so as to enable administration to be both economical and efficient.

The several sources of income which will be under the charge of the local authority have been indicated in the foregoing survey; to recapitulate here, they are: Endowments subject to endowed schools acts (£735,000 gross), additional available endowments (£100,000), grant under the customs and excise act of 1890 (£748,000 in 1893-94), rates (£640,000 possible outcome), tuition fees, Parliamentary grants. The last two are unknown and variable quantities in the problem. With respect to fees, the commissioners advise "that as a rule, assuming the school to have its buildings found, and the expense of their maintenance not to be included in 'cost price,' the cost price ought to be taken as the standard."<sup>2</sup>

*Number of secondary pupils.*—The want of statistics as to the actual number of secondary students in England is not supplied by this report. The number of secondary students, boys and girls, in the endowed and proprietary schools of seven selected counties is given as 32,092, or 3.6 per 1,000 inhabitants.<sup>3</sup> If this ratio prevailed over England and Wales, it would give a total of 108,200 secondary students in the classes of schools named. The ratio is greatly exceeded in

<sup>1</sup> For recommendations as to scholarships in full, see Vol. I, pp. 300-305.

<sup>2</sup> Vol. I, p. 312. For estimates, see Digests of Evidence, p. 605, present report.

<sup>3</sup> Vol. I, table, p. 424.



London, where the number of secondary students in public endowed and public proprietary schools is 26,179, or 6 to 1,000 inhabitants.<sup>1</sup>

Private schools, it will be observed, are omitted in this view. A recent estimate by the president of the Association of Private Schoolmasters gives 600,000 as the number of pupils under instruction in private schools.

The full bearing of the recommendations, here briefly summarized, which will certainly go far toward determining the future conduct of secondary education in England, can not be well understood apart from their historical antecedents. These are briefly outlined in the following extracts from the historical survey with which the commissioners preface their reports:

#### EXTRACTS FROM THE HISTORICAL SKETCH.

[Report of the Royal Commission, vol. 1, pp. 7-80.]

*Preceding commissions.*—It was not until 1861 that what is now called secondary or intermediate education engaged the serious attention of the Government. "In that year a royal commission was appointed to inquire into the condition of 9 among the chief endowed schools of the country, viz., Eton, Winchester, Westminster, Charterhouse, St. Paul's, Merchant Taylors, Harrow, Rugby, and Shrewsbury."

The report presented by this commission (1864) led to legislation "which introduced certain reforms in the administration of seven of the above schools which were nonlocal in their character, boarding for the most part as well as educating their pupils. The two excepted were day schools, drawing their scholars from London and its environs, viz., St. Paul's and Merchant Taylors. This first commission on secondary education was followed by a second, with a much wider and more national reference. This was the royal commission appointed 28th December, 1864, to inquire into all the schools which had not been included either in the commission of 1861 or in the popular education commission of 1858." \* \* \*

Its report, presented in 1867, and extending, with the appendices, to 20 volumes, throws a flood of light upon the whole subject, and it may be taken as a fitting point of departure from which to trace in outline the recent history of English secondary education.

#### RECOMMENDATIONS OF THE SCHOOLS INQUIRY COMMISSION.

The chief recommendations of the schools inquiry commissioners fell under three heads. The first of these heads compared the reforms which the commissioners deemed needful for the better management of the revenues of endowed schools and for securing the efficiency of their teaching. The second head related to the constitution of the administrative authorities, which were intended to carry out the reforms suggested and to bring both public opinion and professional experience to bear upon the development and working of a comprehensive educational system. Three such authorities were recommended—(1) a central authority, (2) a local or provincial authority, with a certain jurisdiction both in proposing schemes for the reform of endowed schools (the area being defined as a county or group of counties), and (3) a central council of education, charged with the duties of drawing up rules for the examination of schools and of appointing persons to conduct the examinations.

*Legislation growing out of the above recommendations.*—Fourteen months after the presentation of this epoch-making report, Your Majesty's then Government laid before Parliament a bill founded upon it, which, with some important changes, became law in the course of the session as "The endowed schools act, 1869." By this act a body

<sup>1</sup> Vol. IX, table, p. 437.

called the "Endowed schools commission" was established, with powers of making schemes for the better government and management of endowed schools (except the above-mentioned seven, which had been dealt with by the earlier act of 1868, and except a few other small classes of exempted schools). This commission was, by the endowed schools act of 1874, merged in the board of charity commissioners for England and Wales, while another act, passed in the preceding year (1873) modified in several points the provisions of the predecessor of 1869. Under these three statutes schemes have been framed and approved by Your Majesty for no less than 902 endowments in England (excluding Wales and Monmouthshire), leaving only 546 endowments, out of a total of 1,448 endowments in England, known to be subject to the endowed schools acts, which have not felt the reforming hand of the commissioners. By these schemes, which have been in a few cases replaced by amending schemes, great improvements have without doubt been effected both in the constitution of the governing bodies and in the educational work and character of the grammar schools. But a good many endowments, as having been founded less than fifty years before the passing of the act of 1869, have remained exempt from its useful provisions, while, as we shall have to point out presently, the powers of the commissioners have not always been found adequate to the needs of the case."<sup>1</sup>

#### AGENCIES FOR FOSTERING SECONDARY EDUCATION.

*Public agencies.*—The existing agencies for secondary education, as enumerated by the commissioners, are as follows: First. The school board, which have been active in creating "higher-grade elementary schools." These are really secondary in their character, "so far at least as regards their higher classes, in which instruction beyond the standards is given. They have, in fact, stepped into the educational void which the schools inquiry commissioners, noting it with regret, had proposed to fill by what they termed 'secondary schools of the third grade.'" \* \* \*

"Nor has the tendency thus to extend upward the range of primary instruction been confined to school boards. In some voluntary schools also ex-standard classes have been established, and upper departments of the higher-grade elementary type developed. The act of 1891, which replaced scholars' fees by a fee grant from the national exchequer, may possibly have increased the disposition to allow children to remain at school longer than formerly. But it has had another remarkable effect. It has rendered needless the old endowments, which, as attached to many elementary schools, were used to relieve the pupils from the payment of fees; and in making that which was a gift to places that did not possess such endowments—no gift at all to those places which did—it has raised the question of finding some purpose to which those endowments, no longer needed to replace fees, can in future be usefully applied."

The second agency has been that of the science and art department, whose grants began as far back as 1837. Although not originally made to schools or even for education, through the tendency of legislative and general changes in education they have become grants to scholars in schools, and thus virtually grants in aid of secondary instruction.

The third agency is that of "new institutions for higher education, particularly the new university colleges, whose growth has been so notable and interesting a feature of the last two decades. In 1863 only three of the eleven English colleges which in 1891 were deemed worthy of a share in the parliamentary grant of £15,000 had risen to the rank which all have now attained. \* \* \*

"Similar in character to these university colleges, which are open to both men and women, we have seen within the same period five new colleges established especially for women, viz: Girton (first at Hitchin and now near Cambridge), in 1869; Newnham (at Cambridge), in 1871; Somerville (at Oxford), in 1879; Lady Margaret Hall (at Oxford), in 1879, and Holloway (near Egham in Surrey), in 1886; while another women's college (Bedford College, London) has attained a rank equal to that of these five."

<sup>1</sup> Historical Sketch, pp. 8, 9.

The fourth of the new agencies is that of the county and county borough councils, which by the technical instruction law (1889) were empowered "to levy a rate not exceeding 1 d. in the pound for the support or aid of technical or manual instruction." Subsequently (1890) the surplus from the beer and spirit duties was turned over to the councils, with the privilege of applying the same to technical instruction.<sup>1</sup>

#### INTERMEDIATE EDUCATION (WALES) ACT.

In discussing these several agencies the commissioners call attention to recent legislation affecting secondary education in Wales. By the law passed in 1889 "the power of initiating schemes for educational endowments exercised by the charity commissioners under the endowed school acts was transferred for a limited period to an education committee of 5 persons, 3 appointed by the local council and 2 by the lord president, constituted for each county and county borough in Wales and Monmouthshire." \* \* \*

"Although this act has been only five years in operation, enough has already been achieved by it to show the importance of concentrating and correlating the various local forces and influences that can be used to promote education, and in particular to demonstrate the gain to be expected from the establishment of representative authorities charged with functions in that behalf."<sup>2</sup>

*Voluntary agencies.*—In addition to the agencies above considered and which have more or less of the official character, the commissioners note "the voluntary action, both individual and associated, of private persons, which has materially altered the aspect of the problem as it presented itself to the schools inquiry commission." "The first point," they say, "which here calls for notice is the change which has taken place in the status of the teaching profession. In 1868 it was almost entirely unorganized, its members isolated, and but little drawn together by the ties of common interest or common aim. There was comparatively little of that so-called "solidarity," or sense of responsibility, at once personal and collective, which is necessary to the discipline and high tone of a great profession. The state of things to-day shows a sensible improvement. Teaching is now an organized profession, and the tendency to consolidation is shown in the growth of several important bodies. The most dignified, although the smallest, of these is the Head Masters' Conference, established in 1870, which consists of the heads of the chief endowed public schools of the country, 89 in number." The most numerous is the National Union of Teachers (founded in 1870), counting at present about 28,000 members, nearly all engaged in elementary schools and not wholly unconcerned with secondary education." \* \* \*

"The Association of Head Mistresses dates from 1874, the University Association of Women Teachers and Private Schools' Association from 1883, the Association of Assistant Mistresses from 1884, the Teachers' Guild from 1885, the Incorporated Association of Head Masters from 1890, and the Association of Assistant Masters, the Association of Head Masters of Preparatory Schools, and the Association of Head Masters of Higher Grade Elementary and Organized Science Schools from 1892."

The College of Preceptors, which is more than an association of teachers, already existed in 1868. \* \* \*

Of private educational associations that are the direct outcome of the report of 1867 the most important are "The Girl's Public Day Schools Company, founded in 1872, which has already 36 schools, with 7,111 pupils; the Church Schools Company, founded in 1883, which has 27 schools and 2,166 pupils. Similar private action on a smaller scale has created not a few excellent proprietary schools in the large towns, especially in those where endowed schools either have been wanting or have fallen into torpor; while at the same time the level of private schools generally has risen, unequally, no doubt, and in some towns as well as in many rural districts scarcely at all, yet if we regard the country as a whole, to a substantial degree." Of the

<sup>1</sup> Historical Sketch, p. 13.

<sup>2</sup> Historical Sketch, pp. 9-13.



progress in the education of girls, which the commission of 1864 found in so deplorable a state, the present commissioners say:

"The improvement which we have noticed is perhaps most marked in girls' schools, proprietary and private, as well as endowed. School keeping is less frequently than it used to be the mere resort of ladies possessing no other means of support. The development of women's colleges, the opening, as yet only partial, of Oxford and Cambridge to women, the admission of women to classes of the new university colleges, has provided a far larger supply of competent women teachers. No change of recent years has been more conspicuous than this, nor any more beneficial. And in considering the causes which have produced this effect the opening of university degrees to women, in which the University of London was the pioneer, must not be ignored."

In this survey of movements which have taken place since the report of 1867 was issued, and which in some measure at least were promoted by that report, the commissioners dwell also upon the increase of popular interest in the cause of education. The schools inquiry commission held that without this interest "legislation could accomplish little; with it there might be many failures and mistakes, but the end would certainly be correction and improvement." Events have gone far to justify their forecast. The intervening period has been one of constant movement and experiment in both elementary and secondary education. Between these it has been found easier to draw a theoretical than to maintain a practical division, but wherever the dividing line may be drawn, instruction has been so enlarged on both sides of it that whole regions of knowledge at one time scarcely thought of as falling within an educational curriculum have been added to its province. The classical languages are taught more extensively than ever, but less as if they were dead, and more as if they still lived, rich in all those humanities by virtue of which they have been the supreme instruments of the higher culture. And they do not now stand alone; a place and a function have been found for modern languages and literatures, and it is ceasing to be a reproach that our schools have cultivated dead to the exclusion of living tongues. There has been a remarkable and growing use in education of certain physical sciences, while technical and manual instruction has risen and assumed, especially in certain localities, what may in some respects appear to be rather large proportions. And though some of these extensions represent new departments of knowledge, yet they involve instruction in old subjects, like mathematics and mechanics, and so build on them that the progress of the scholar depends on the knowledge he already possesses of them. "The idea of technical instruction as a means for the formation of citizens capable of producing or distributing wealth has taken hold, though in varying degrees of intelligence and intensity, of both our old borough councils and our new county councils, and hence has come a concern for that kind of education that we might otherwise have looked for in vain."<sup>1</sup>

#### THE STATE AS A FACTOR IN SECONDARY EDUCATION.

"Another point which emerges from the comparison of the state of things described by the schools inquiry commissioners with that which we see to-day is the swift growth in the educational functions of the State. \* \* \* This growth has not been either continuous or coherent, i. e., it does not represent a series of logical or even connected sequences. Each one of the agencies whose origin has been described was called into being not merely independently of the others, but with little or no regard to their existence. Each has remained in its working isolated and unconnected with the rest. \* \* \*

"This isolation and this independence, if they may seem to witness to the rich variety of our educational life and to the active spirit which pervades it, will, nevertheless, prepare the observer to expect the usual results of dispersed and unconnected forces, needless competition between the different agencies, and a frequent overlapping of effort, with much consequent waste of money, of time, and of labor."

<sup>1</sup> Historical Sketch, vol. 1, pp. 14-16.

<sup>2</sup> Historical Sketch, pp. 17, 18.



## SOME CONSIDERATIONS RELATING ESPECIALLY TO THE SECONDARY EDUCATION OF GIRLS.

"Since the schools inquiry commission made their report in 1868 there has probably been more change in the condition of the secondary education of girls than in any other department of education. The report of that commission, the action of the universities in regard to the higher education of women, and other causes have produced an effect which is gradually pervading all classes of the community, and through this or other causes the idea that a girl, like a boy, may be fitted by education to earn a livelihood or, at any rate, to be a more useful member of society, has become more widely diffused. The supply of good schools for girls is now far larger than it was twenty-five years ago.

"Private schools have very much improved, schools for girls under public management have sprung into existence, and many parents of the richer classes who would formerly have employed private governesses now send their daughters to day schools or boarding schools.

"The increase in the supply of good public secondary schools for girls has probably been both an effect and a cause of the great change in public opinion as regards their education. This increase is due partly to the action of the endowed schools commission and charity commission in restoring to the use of girls educational endowments originally intended for them and in directing the application to the education of girls of a share of those not specially appropriated to boys. It is perhaps to be regretted that more has not been done in this direction. This, however, is a defect for which the backward state of public opinion and not the charity commission is to blame. The commissioners of 1864 mention only 12 endowed schools for girls in England (exclusive of Monmouthshire). There are now some 80 girls' schools giving secondary education in accordance with schemes established under the endowed schools acts, and there are other endowments under those acts which are, or under certain circumstances may become, available for the secondary education of girls.

"Indeed, so far as modern beneficiaries are concerned the prospects of higher education for girls and women are exceptionally good. In their latest report the charity commissioners, after giving a list of gifts of £1,000 and upwards in the last twenty years, make the following remarkable comment: 'As to one particular branch of educational endowments, namely, that for the advancement of the secondary and superior education for girls and women, it may be anticipated that future generations will look back to the period immediately following upon the schools inquiry commission and the consequent passing of the endowed schools acts as marking an epoch in the creation and application of endowments for that branch of education similar to that which is marked for the education of boys and men by the Reformation.'

"Another fruitful source of increase in public secondary education for girls has been the establishment of proprietary schools on commercial principles—sometimes by purely local companies, sometimes by companies extending their operations over the whole country or large districts. The most important of the latter class are the Girls' Public Day School Company and the Church Schools Company, which between them own 60 schools. Proprietary schools have generally been established and managed by persons genuinely interested in education, and their success, at least in districts where the population suffices to maintain a large school, has been very remarkable. They have, moreover, led to the establishment in some places of good proprietary and private schools conducted on the same lines.

"The fees in the schools of which we have been speaking range generally from 9 to 15 guineas per annum, and the education is continued, when desired, up to the age of 19. Proprietary schools giving a less expensive education at a lower fee have been less successful, and there seems to be a good deal to be done in improving both the demand for and the supply of schools for girls leaving school at about 16 and unable to pay a high fee. But while this is a serious want, there is also a cer-

tain deficiency in the supply of the more expensive kind of high school, that, namely, which can give the very best teaching, and enough of it, in all subjects. A better staff is required for this purpose than can be paid out of an average expenditure of about £13 per pupil. There are very few girls' schools in which the cost is so high as £18 or £20 per head; but their popularity shows that there is a demand for them, even at self-supporting fees.

"So far as can be judged from places where the supply of public secondary education of the first and second grade taken together is equal in quantity and quality for boys and girls (e. g., Birmingham, Exeter, Thetford), the demand for the two sexes is about equal. As regards education ending at about 14 or 15, it is more difficult to judge. There is little public provision of education of this kind outside of higher grade elementary schools with ex-standard classes. In most places where such ex-standard classes exist they are less attended by girls than by boys; but whether this is because the girls are wanted at home, or because education is thought to be less remunerative for girls than for boys, or because the girls are educated elsewhere, or for all these reasons, it is difficult to say.

"The secondary education required for girls of the industrial classes will necessarily differ in some respects from that required of boys of the same classes. But it is undesirable that this difference should so be emphasized as to obscure the aim common to secondary education for boys and girls alike. There are, broadly speaking, two divergent views of this question. In one view practical utility is paramount. The girl is to be trained for domestic duties, as the boy is trained for some definite calling. In the other view, the first aim is a true education of the mind for girl and boy alike; and the special requirements of the industrial classes should, as far as possible, be subordinated to that aim. It is not incompatible with the recognition of this principle that the girl, like the boy, should receive some special instruction in the subjects demanded by her special circumstances.

"Of the grants made to secondary schools by local authorities under the technical instruction acts, by far the larger share goes to boys, though the value of the grant per head is in many instances the same for the girl as for the boy.

"With regard to the scholarships provided by the local authorities, girls are in some cases excluded; in others, they enter for an open competition with the boys; in others, again, the scholarships are definitely apportioned between the two sexes. Where this last rule obtains, it is common to find that three-fourths are reserved for the boys, and one-fourth for the girls; or two-thirds and one-third, respectively. Bristol gives 36 senior scholarships to boys and 15 to girls; while of the junior scholarships, 90 are for boys and 15 for girls. In London the intention of the technical education board was to allot scholarships in equal proportions to boys and girls. But as the number of boys competing was double that of girls, the board decided to grant two-thirds to boys and one-third to girls. There were, however, a few special scholarships for girls only. Experience will probably show what the best division between the two sexes is in each district, but there is no doubt that for girls, as for boys, scholarships are needed, both (1) to enable the cleverer girls (*a*) to enter secondary schools, (*b*) to prolong their stay in them, and (*c*) to proceed to the universities or other places of higher education; and (2) to serve as a stimulus to secondary education and help to keep up the standard.

"The need of more scholarships to the universities is much felt by girls, more especially by the proprietary schools. There is also a need of some scholarships sufficiently large in amount to cover, or nearly cover, the whole cost of a girl's university education. The St. Dunstan's scholarships are at present the only ones on this scale, and it is understood that even these are not to be continued. A few words may be added here on the question of mixed schools. Mixture is the rule in higher grade elementary and ex-standard schools, and mixed elementary schools are becoming more numerous in England. Such schools ordinarily have men at their head; and an apprehension has been expressed that the average quality of the elementary

schoolmistress may be impaired by the fact that the prospect of becoming a headmistress is, in this case, closed to her. On the other hand, there is at least one instance of a headmistress who has several assistant masters under her.

"In preparatory schools boys and girls are not generally taught together after the age of 8. Cases occur, however, in which they can be very successfully taught together up to 12 or even 13 to 14. There are also instances of mixed grammar schools. In such a school, described by one of our assistant commissioners, the ages of the children appeared to vary 'from 11 to 17; there were no small children.' Of the 40 pupils, 16 were girls. It would appear that, though the 'mixed' system will in England be usually confined to elementary education, there are cases in which its use for secondary education is practicable and has been successful. In small places a considerable gain, not only in economy but in educational efficiency may sometimes be secured by having one school rather than two."

#### WOMEN AS ADMINISTRATORS OF TRUSTS.

In this connection it is interesting to note that, as the education of women is improved, they are brought by a natural pressure into positions of public trust. The movement is illustrated by a "Memorandum on the relation of women in England to the administration of public charities," which may be referred to here as rounding out the information on this point supplied by the report of the Royal Commission. In the introduction the memorandum sets forth that—

"There is nothing in the general law of England to prevent a woman (as such), whether single, married, or widowed, from being a trustee either of a private or a public trust.

"There are, however, certain disadvantages in the trusteeship of a woman which have been greatly lessened, though not altogether removed, by the married women's property acts.

"These disadvantages, coupled with the habits and customs of this country with respect to the relations of women to matters of business have produced the result that women are seldom trustees of private trusts, and until recently were still less often trustees of public trusts.

"Even in the case of endowed charities for the benefit of girls or women, such as an endowed hospital or almshouse for women or an endowed charity school for girls, it was, until quite recently, most rare for a woman to become a trustee. Such charities have been numerous in England for some centuries, but until recent legislation minimized the disadvantages of female trusteeship they were properly considered to outweigh the advantages.

"For the secondary and superior education of girls and women there existed in England, until after the beginning of the latter part of the present century, scarcely any endowed charities,<sup>2</sup> and this fact had a double effect on the relation of women to the administration of public trusts in this country. First, on account of the non-existence of such charities as these there was no demand for female superintendence over a class of trusts in regard to which such superintendence is most valuable; and, secondly, for the same reason women of the middle and upper classes of society had not been to any great extent educated in such a manner as to render them competent in matters of business and administration."<sup>3</sup>

"During the last thirty years, however, a great change has been taking place in the relation of women to the administration of public charities in England, the cause of which may be traced, in part at least, to the following facts."

Here the memorandum reviews the work of the commission of 1864 so far as it relates to the education of girls and the practical efforts in this direction that resulted therefrom as already set forth in the report of the royal commission.

<sup>1</sup> Historical Sketch, vol. 1, pp. 75-80.

<sup>2</sup> Report of Schools Inquiry Commission, vol. 1, p. 565.

<sup>3</sup> See the interesting statement in the School Inquiry Report, Vol. VIII, p. 529, and a paper by Mrs. William Grey on the education of women; Ridgway: Piccadilly.



The memorandum then proceeds:

"The combined effect of all these events, whether legislative or social, has been to greatly modify the relation of women to the administration of educational charities in England and Wales. Although, as above stated, the Schools Inquiry Commission made no recommendation as to this matter in their report, the commissioners who had the charge of working the endowed schools act of 1869 saw clearly from the beginning of their work that it was necessary to provide for women having a large share in the administration of educational endowments; and in Paragraph XXI of their first report for the year 1871 to the committee of council on education they made the following observations on this matter:

"The last point we have to notice in the constitution of governing bodies is the introduction of women. On the one hand we think it hard to maintain, after much recent experience, that women are not in very many cases admirably qualified to take part in any educational work; in which cases not to use their assistance is a waste of resource where resources are scanty enough; but on the other hand we are not prepared to say that to require their introduction in every place would be found to work well. We have therefore, as to boys' schools, simply made women eligible on the governing body. But the case seems to us different as to girls' schools, and in those we have, by the schemes, required the presence of a certain number of women as governors."

"The policy described in these sentences has, with certain comparatively unimportant variations of detail according to circumstances of cases and the temper of the times, been that of their successors, the charity commissioners, in dealing with endowments under the endowed schools acts."

#### RÉSUMÉ OF EXPERT TESTIMONY AS TO THE PROPER ORGANIZATION AND ADMINISTRATION OF SECONDARY EDUCATION IN ENGLAND AS GIVEN BY SEVERAL WITNESSES BEFORE THE LATE ROYAL [ENGLISH] COMMISSION ON SECONDARY EDUCATION.<sup>1</sup>

The testimony given by some 84 witnesses before the late royal commission on secondary education covers 1,500 closely printed octavo pages, which carry more than 17,000 questions and answers. Much of this matter, though of the greatest importance to the commissioners, is not well adapted to being placed in a lucidly succinct manner before a public familiar with a very direct method of raising revenue for public schools of secondary grade and having the simplest way possible of allotting it. Two features, however, of the evidence obtained by the commission are of interest to a people who do not yet draw educational lines on social standing as far as the Caucasian race is concerned. One of these is the contention that schools which in the course of many years or even centuries have been endowed by private persons are endowed also with the purpose of educating the bright boys among the "industrial or lower middle classes," who are to be supported in these endowed schools by scholarships, while a class of schools called "higher grade" are particularly adapted to the average boy of the elementary schools.<sup>2</sup>

The other feature is the effort to prevent overlapping in these privately endowed but publicly used (for clever boys) schools with the

<sup>1</sup> Résumé prepared by Mr. Wellford Addis.

<sup>2</sup> Cf. testimony of the Bishop of London, a member of the secondary school commission, 1868; Dr. R. B. Poole, chairman of the Head Masters' Association, and Rev. E. F. M. MacCarthy, representing the school boards of England.



higher grade or secondary school for the average boy. To bring this about a sort of general arbitration board, called the central authority, was generally proposed to act as a buffer, as it were, between the large district or provincial or county authority (the board proposed being variously named), and the community, the private schools, and the boards of governors of the endowed schools. It would certainly seem, from the general drift of the evidence, that in England it is desired to segregate the clever boys of poor parents, whether these parents be industrial persons, small doctors, lawyers, poor clergymen, or clerks, into schools which have a certain, more easily understood than described tone about them, but at which the average boy shall not be instructed, at least at state (scholarship exhibition) expense. The object of this segregation, however, is to more highly educate at state expense those found worthy to profit by their advantages, yet too poor themselves to meet the expenses of an advanced course of instruction. To bring out these points the testimony of men of experience, and of large understanding of their speciality, has been introduced, as follows:

*Testimony of Sir George Young, member of the board of charities (to which was intrusted the control of endowed secondary schools by the Government of Mr. Disraeli).<sup>1</sup>*

Two objects, distinctly different in character, though concurring to the same end, are to be accomplished in organizing secondary education in England: The schools must be located (or, to use the witness's words, the ground must be covered) and the schools administered. They must be governed on a comprehensive scheme that has sufficient vitality to prevent anarchy, but also elastic enough to allow great swing to local aptitudes and wants. The great danger in the work of such a commission as that before which he was testifying is that it is disposed to create too much machinery, and the strong feeling among teachers and the public that the elementary educational department is too centralizing should also be carefully considered in framing a bill for the creation of a central authority for secondary education.

The two objects to be accomplished in introducing secondary schools should be effected through two bodies of persons, differing in the source from which they are selected. To one body, which is to be merely temporary, should be committed the location of the schools and their preliminary organization within an area to be determined not by existing county lines, but by expediency. To another subsequent and permanent body should be given a certain amount of definite control in specified matters, as inspection, examination of scholars, and school supplies, but not the control of the school in the ordinary sense of the word, which should be confided to a local board which would be in touch with the head master.

The first body, or board of location and preliminary organization, should be instituted to prevent premature stereotyping of the character of the board. It should be composed of from 11 to 25 members, women being included where of service, the majority of whom should be representatives of the county councils, and the others nominees of a responsible minister. Ministerial nominees are preferable to persons chosen by local educational bodies or professional associations, inasmuch as they will generally be of a higher character. Teachers (as such) on the preliminary board are undesirable, as they are swayed by particular interests. In brief, the qualifications required for an agency to cover the ground with schools should consist of those having experience of educational problems, of those having knowledge of and credit in the localities to be dealt with, those competent to deal with legal questions, and

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<sup>1</sup> In 1874.

those willing to respect continuity of tradition in existing institutions and special care to respect the opinions of parents.

The constitution and methods of the permanent or general administrative body might be left to the temporary body. Indeed, by the introduction of more especial representatives of the university, and of persons learned in the affairs of secondary education, the preliminary body might pass into the permanent one. But there is difficulty in getting professional persons—the teacher in office is too busy; the retired teacher belongs to the past.

The area to be treated is of much importance. Considerations of centers of population, convenience of railway transit, and of sizableness must be had. It is advisable that educational provinces be created—for instance, that the small counties of Cumberland and Westmoreland and that portion of Lancashire called Barrow-in-Furness be made a province for educational purposes, and that where two large cities are located in one county, as Liverpool and Manchester, instead of making county borough educational districts of them they might be erected each into an educational province, with the intervening territory divided between them. In short, county bounds should be ignored and utility govern the limits of the educational province.

The central agency has been in Wales, the board of charity commissioners. The joint county educational committees referred all proposals of schemes to the charity board, who modified and returned them, and if an agreement could not be had the matter was referred to the minister. The successful operation of this method was due to the presence of an agent of the charity board at the meetings of the joint county board when the proposals of a scheme were adopted. It would be indispensable to have a large corps of such agents if establishing the Welsh system of secondary education in England, especially since Wales was not covered with endowments, as was the case in England, being, as it were, a *tabula rasa* in that respect. The witness would insist that he was incompetent to give any decided opinion upon the question of making England a *tabula rasa* in the same respect as Wales, as would have to be the case if elementary education were made directly auxiliary to secondary education by the reconstruction of English educational ideas, and would suggest that the powers of the educational department were not so favorably regarded as those exercised by the board of charity commissioners "where the value of decentralization was understood." The central power in secondary affairs should therefore be distinct from any central educational power now existing in England, though under the same minister (the vice-president of the committee of council of education), and the eyes of such a central body would be the agents referred to above. Between the central authority and the local boards for each school would be the provincial board and possibly, for financial purposes, the county board. But to more distinctly characterize the educational province, each one of them if not too small might be looked forward to as becoming the possessor of a university of its own; and to unmistakably characterize the provincial board it should be instituted to prevent the whole power of control being centered at London.

The local board should be composed of elected representatives, an education element including elementary teachers or representatives of the elementary school board, and two or three members known to be well able to give assistance, but who would not likely to go through the annoyances of a popular election.

The provincial board being a break in the direct operation of the central authority, though subordinate to it, that authority must depend upon the returns made by the localities, the reports of examiners and of its own agents, for dereliction on the part of the management of the schools.

The course of secondary education is modified in England by three factors—the necessity of accommodating its character to the length of time to be devoted to it, individual parental feeling, and the scholarships offered by Cambridge and Oxford to those 18 or 19 years of age. In conformity with the report of the schools inquiry commission, the secondary schools were divided into three grades, in each of which the

pupil was expected to pay a fee, the third grade was intended for those leaving before attaining their fifteenth year, the second for those leaving from 15 to 17, and the first for those remaining until their eighteenth or nineteenth year. Only one of these has had a quiet existence. The elementary school, by increasing its curriculum above the three R's and the correlative studies, and by offering free tuition, squeezed out the third-grade secondary school against the second grade, and the second grade, in which Greek was prohibited, was objected to by parents, who, though in an abstract sense objecting to the strictly classical system of the old grammar schools, are desirous, as parents, of giving their children that kind of education even yet. Indeed, at Bradford and Wakefield the endowed schools commissioners were so hotly opposed in their attempt to make the school there into a second grade, that they were compelled to yield. The tendency to keep boys at a secondary school has passed beyond reason, considering how desirable it is that they should enter upon the freer life of a university; and to drive up the age, as Oxford and Cambridge have done, is to increase the expense, and it is probable that the richer universities of England will become the universities of the rich, and the poorer universities the universities of the poor. It is said that in Scotland a very large proportion of the best students enter the university at 15 or 16. This would create a social distinction, which would antagonize the work of the secondary, in mingling the rich and poor, as the objection made by some parents to having their children mingle with those of people whom they consider to be in a lower social grade than themselves has considerably diminished, though more slowly in schools for girls than in those for boys. Now and then the secondary school authorities are met with a social-status difficulty when for the first time they introduce boys by merit from the class that attend public elementary schools into a secondary school, but experience has in almost every instance led the local people to see that their fears were unfounded, and the anticipations of the endowed schools commissioners that there would be no practical obstacle to the admission of promising boys from elementary schools to so-called second-grade schools.

Were the universities to lower the age from 19 to 17, it might be necessary to alter the regulations governing admission to the army; but it is not at all certain that the candidates for the army desire a realschule education, just at this time at least, as such candidates come from the upper classes, which have by no means ceased to desire a classical education for their sons; for from recollections of his own experience in examining for army entrance the witness was strongly inclined to say that the education encouraged by those examinations was intended to be that generally given in the great public schools. When pupils are going to leave at different ages—say one part at 16 years of age and another at 18—it is preferable to have them in different schools if the funds permitted. Departments limited by age, or by fee, or by curriculum, have broken down in every school where they have been tried. Modern sides parallel with classical sides have been more successful, but are clearly less efficient than separate schools, because the head master can not be equally interested in the performance of both sides. A third and least desirable form is the second-grade secondary school with a first-grade top. It is very desirable to have a limitation of age after which boys should not be allowed to stay in a school, for if boys are allowed to stay after the age specified there will be an upper class of boys which will have the principal attention of the master and give a cast to the whole curriculum in a direction in which it should not be influenced—that is to say, on the old classical lines. Governing bodies are ambitious, and would like to see their school a first-grade secondary school. No one can object to seeing a first-grade secondary school in the hands of a first-rate classical scholar, but it is objectionable to see second-rate classical scholars getting the best second-grade secondary schools and the poorer secondary schools being mastered by those who can only be described as third-rate scholars, all of which is a very great discouragement to those who desire to make themselves proficient in modern subjects.



It is impossible to logically arrange the distribution or grading of schools in the rural districts. There one must permit a single school to do two kinds of work.

In regard to the spirit in which these schools are to be conducted the whole limitation of the local grants, under the customs and excise act, to technical education, or rather to anything which is not literary, will have to be removed. To retain it would distort the balance of the curriculum. The appropriation of the fund should be made to the literary or the technical side at discretion of the county councils.

*Testimony of Dr. R. B. Poole, head master of the Bedford Modern School, representing the Head Masters' Association.*

The Head Masters' Association has a membership of 270, and is open to all head masters that have no pecuniary interest in the company which manages the school finances. There is also the Head Masters' Conference, composed of those who prepare principally for the universities. Together these associations have 370 members, a little more than one-half of the head masters in England and Wales. The Head Masters' Association considered that there should be a central educational board, which should consist of various nominees by the Crown, the universities, and other bodies, such, for example, as their own. This board should be presided over by a minister of education, and through him be represented in and be responsible to Parliament.

The powers of the central board should be large; it should be the ruling and regulating power over all secondary education, whether supported in part by the State or municipalities, by endowment, or wholly by fees. It should be a court of appeal in regard to the placement of new schools, the amalgamation of others when they are too numerous or are ineffective, and should have the direction and inspection of all the secondary schools of the country; but those regulations should be carried out by an intermediary body called the provincial council, which would be supposed to exert great influence in the formation of the regulations in the way of adapting them to local needs.

The provincial body might have for its jurisdiction either the area of a county or of a group of counties, the aim being to have a jurisdiction containing from one to two millions of people, though no subdivision of counties, even if urban, should be made. The powers of the provincial council should be locally executive, to levy rates, to invite proposals for supplies, to suggest the scheme of instruction adapted to its particular province, to carry out the general orders of the central board, and to report to that board the places where necessity dictated that new schools should be established and the ways and means thereto.

The nonlocal, national, or so-called public schools (the 9 so called and about as many more not so styled) should not be placed under the authority of the provincial body, though they should be connected with the system of secondary education through scholarships from second-grade schools (for boys ending their schooling at 17) to them. All private schools should be registered, and one of the prerequisites of ability to register should be that each school must submit itself to the inspection of the provincial council.

Each school should have its own governing body, except in large towns, where a number of such bodies may be amalgamated perhaps with advantage. It is most desirable that members of governing bodies should be locally interested in the schools which they govern. Upon this governing body the head master should have a consultative seat, but no vote. He should have the power of appointing and dismissing his assistants with an appeal to the governing body; indeed, such an appeal being open, it would be easier practically for a head master to discharge an assistant than if the matter rested wholly in himself.

The class of persons who require to have a new or improved system of secondary education given to them are what may be called the lower middle classes. There are



a large number of artisans who would be able to pay £6 annually for several of the children in attendance at secondary schools. A considerable number of children whose parents were too poor to pay the £6 would be able to obtain it through scholarships from the elementary schools. To furnish these scholarships, the county boards would have to be called upon to eke out the endowments given to many elementary schools for the purpose. In regard to witness's own school at Bedford, which enrolled 600, 100 boys came from the country, attracted by the low rate of tuition fees (£4). Some of these came 20 miles, but it is found, in general, that the distance they have to come detracts a great deal from their mental faculty.

The salaries of assistant masters is entirely inadequate. In a great many schools there are masters who are not receiving more than £100 or £120 annually, and there are a considerable number of younger people who are receiving still less. The witness knew of cases where £60 or £70 were received. In all these cases board and lodging are excluded. In the Bedford School, one of the most richly endowed in England, one-half of the assistant head masters are university men, and a number of them over 35 years of age.

*Testimony of Rev. E. F. M. MacCarthy, M. A., vice-chairman of the Birmingham school board and head master of King Edward's Grammar School, Fiveways, Birmingham, representing the Association of School Boards of England and Wales.*

The witness made a fundamental distinction between secondary schools supported by endowment and those supported by the county council. The curriculum of an endowed secondary school (of second grade) is based on the understanding that the pupil enters the school at an early age (say under 11 years of age) and remains there for five or six years. Now a pupil who has completed the sixth standard of the elementary education code in a public elementary school is 12 or 13 years of age. Such a pupil using the endowed secondary school as a continuation school enters the latter with a mental equipment much narrower in range than the pupils of corresponding age among whom he finds himself. He suffers many disadvantages on this account. A pupil, however, who leaves the public elementary school earlier (say after passing Standard IV or V) suffers fewer disadvantages, though naturally a clever pupil of any given age suffers less from the dislocation than an average pupil of the same age.

A protest should be entered against the widely prevailing theory that only clever pupils from public elementary schools are to be expected to desire to continue their education in an endowed secondary school. Endowed secondary schools should be open to all classes of pupils, whether they are clever or not. Any parent of a child of even average ability is justified in desiring a continuation school above the elementary school for his child, and thus, when he has completed the course of the elementary school, to pass him on to an endowed secondary school for his further education, provided the parent is pecuniarily able to do so. The usefulness of the endowed secondary school, as contradistinguished from the secondary school supported by the county (that is, as far as Birmingham is concerned), is limited by the fact that only those pupils who have left the elementary schools at 10 or 11 (Standard IV or V) achieve as a rule any measure of success. Many even of these having received a narrow range of training, and being only of average ability, had much better have remained and completed their course at the public elementary school, and then they would have found a natural continuation school in the county board school, but pupils of 12 or 13 who have gone right through the ordinary public elementary school course (passed Standard VI), or pupils of 14 or 15 who have spent some time beyond Standard VI in a higher grade elementary or board secondary school (like the holders of county council technical scholarships or exhibitions) are certainly not fitting subjects to be dealt with by an endowed secondary school. All these come too late and leave too soon to derive much benefit. The point, therefore, is that the board secondary school is the natural continuation school to a public elementary school, and should therefore be further developed and better adapted to

meet those new wants, to obtain which these older children now seek an endowed secondary school, but which an endowed secondary school does not and can not supply.

As to whether it is desirable to carry on technical education (in its earlier stages) as a department of a secondary school proper or relegate it to an institution wholly devoted to such instruction, the former alternative is the better, for the following reasons: The teaching staff being available for both "sides," the teaching of mathematics and science on the nontechnical side would be carried on more efficiently than if the technical side were a distinct school. The same would be true of the teaching of literary subjects and mathematics on the technical side. Again, in any arrangement involving distinct schools there would be a tendency to the establishment of social distinctions between the schools, for the danger of a separate lower-grade technical school is this: It is said that it is a school for the sons of artisans, and the other is the school for the sons of gentry or the middle classes. If the schools are under the same head but are divided into two departments, then there would be no chance of social distinctions as between those who are on the technical side and those who are on the other.

The present school boards are the only power to which the whole department of education should be intrusted, because they are the only people that can do the work. All matters pertaining to elementary and secondary education should be intrusted to an ideal school board such as does not exist in England. A good school board for secondary education alone would be one elected by the ratepayers, with the powers of an existing school board for elementary schools.

It is found that the technical education given in the board secondary schools is not filling the minds of any of the children with a desire for the kind of life for which they have not the ability adequate for success (see Note A), but the endowed secondary school (King Edward's school) is drawing a large class of boys into secondary schools, where they pick up ideas about their future career which are clerkly in character and which they had much better not entertain as far as their own prospects are concerned.

There should be no fees for [secondary] education anywhere.

*Testimony of John Bidgood, esq., B. Sc., head master of the Gateshead Higher Grade School and the secretary of the Association of Head Masters of Higher Grade Schools representing his Association.*

The first aim of the higher grade school is to carry on education beyond that which is called elementary. Most schools in England carry on the children to, say, the sixth standard—seldom higher—and a higher grade school is to carry them further forward (from the fourth standard); in some cases this carrying forward may be only for a year or two, and in others to four or five years. The second aim of the higher grade school is to make this education as well fitted for the purposes of such children as they possibly can. In some schools the pupils are taught partly under the code of the education. The witness would prefer that pupils should come to his school at standards IV and V, in which case the beginnings of higher education can be laid down and carried on into the sixth and seventh standards, with the notion of a continuance of three or four years beyond that stage. But in many towns education in the higher grade schools is free, and therefore the school boards have confined all the elementary education to the ordinary elementary schools up to and including the sixth standard, and after that the children are sent to these schools, which become higher schools than the sixth standard. In other places the board have made the arrangement of admitting only pupils of the sixth and seventh standards. The larger number of schools are not free; only schools lately established have free tuition, a condition exacted by the education department. But in all fee-charging schools there are donational scholarships, so that practically there is no child in England who wants a higher education but can get it free (deposed by D. Forsyth, M. A., D. Sc.), and in the Leeds Higher Grade School (witness's own) there

are 200 such scholarships. Besides, all school boards have the power of remitting fees. The fees for tuition are only one source of revenue, another are the grants from the science and art department, and a third source are the grants from county councils from local taxation.

As the higher grade schools are schools for the people, our association feels that they should be under a board elected by the people for educational purposes. It is the pride of our schools that they are in touch with the people and with their needs. The endowed (or "grammar schools")<sup>1</sup> draw exclusively from the upper classes.

*Testimony of Charles Henry Wyatt, esq., clerk of the Manchester school board and representative of the Association of School Boards (England and Wales), of which he is honorary secretary.*

There should be one local educational authority in each area which should be called the board of education, and should have the control of elementary, secondary, and technical education, but not of the university if one, within that area. The adoption of such a proposal would abolish the whole of the rural school boards, and in towns the existing school boards would be given the power to add representatives dealing with secondary education. To these boards of education should be given also the charge of the provision of additional secondary education. There should be such a board of education for each county borough (urban district), and for the "administrative" (i. e. nonurban) parts of counties. This board should be elected by the ratepayers, and might vary in the number of its members according to population or other local circumstances. The board should have power to appoint special committees in each district or group of districts, whose province should be to deal separately with matters affecting secondary, technical, and primary education; and upon the committees dealing with secondary and technical education it should be competent for the district board to appoint representatives from the governing bodies of university colleges, existing secondary schools under the charity commissioners (wherever rate aid may be given), the teaching profession, or any other persons whose influence and assistance would be of value. All these boards should be under a strict central authority, which would not centralize too much, as the control of the education department is a wholesome control. One of the greatest advantages arising from this proposed arrangement would be the abolition of rural school boards, which are on all hands considered objectionable. In short, there would be three great authorities, the school board, the central authority, and the minister; the central authority having the power now possessed by six different bodies, to wit: The education department, the science and art department, the local government board, the home office, the public works loan commissioners, and the charity commissioners. The evils of the present system of having several powers dealing with the same thing can be well illustrated by the divergent action of the science and art department and the education department. The latter has abolished payment by results; the former has really accentuated the evils of that system by holding examinations more adapted to statistical purposes than to the needs of the students. The minister would be responsible to Parliament, and as such would take the whole management of the work.

A necessary connecting link between the elementary schools and the secondary schools proper is the so-called higher grade school. Such schools, properly organized, would crown the elementary system. It is thought that for boys and girls whose education will cease at the age of 16, the secondary education which may be imparted by these schools is of the kind best suited to their wants. These schools, properly organized, would be the direct feeders of the technical schools and of the

<sup>1</sup>It is scarcely necessary to say that the English terms "public schools" and "grammar schools" do not connote what is understood when those terms are used in this country. The English "public schools" are 9 very expensive institutions (Eton, Rugby, etc.), and in general the English "grammar schools" are classical high schools,



secondary schools of the second and third grades. But the present prominence which is given to science teaching and the absolute neglect of many branches of general education seriously interfere with the practical value of the higher grade schools as these are now established in Manchester, where there are 6, with accommodation for 7,104 children. For instance, it is found that a boy leaving one of those higher grade schools will, in the subjects in which he has been taught, be on a level with any boy in such schools as the Manchester Grammar School (classical secondary), but in Latin and Greek he will be nowhere. The higher grade schools should be organized to obviate this defect, but an organization of that kind must be freed from the operation of the present rules affecting organized science schools, which are almost invariably associated with schools of this type. The seating capacity of higher grade schools in England and Wales is now 40,898, and there are 6,629 children in them in classes beyond the standards. But it should be borne in mind that a great deal of secondary work is done within the standards. This class of schools affords opportunity for the most talented and intelligent of the elementary school-teachers, while they also provide an admirable training ground for young people desirous of becoming teachers. It is well to have a preparatory department to such schools; such a department gives a backbone to the school which is otherwise wanting where the whole body of its pupils are transferred from elementary schools. The idea of the organization contemplated in the foregoing testimony (reading from the bottom up and supposing no absolutely necessary connection (?) between the columns) may be expressed graphically thus—

|   |  |   |  |
|---|--|---|--|
|   |  |   | Highest division. Pupils preparing for the universities or professions, etc. |
|   |  | Upper division. Pupils who have passed the standards. | Middle division.   |
| VII.<br>VI.<br>V.<br>IV.<br>III.<br>II.<br>I. | Standards and infants.                                       | Preparatory.  | Preparatory division.  |
| Primary school.                               | Higher grade school<br>(secondary school<br>of third grade). |   | Secondary school of<br>second grade.   |

By this arrangement the secondary schools of the second grade, which deal largely with classical education and are the immediate avenues to the universities, would



each have as a base a preparatory school for those who, owing to class distinctions of various kinds, will never be found in great numbers in the public elementary schools. In the preparatory department of the higher grade school languages and literature might be taught at suitable ages, in order to facilitate the passing of pupils into the secondary schools of the second grade, and from the higher grade school might also pass those who desire a technical education in the institutions provided for the purpose. But technical schools have not been set forth in the diagram, because they are special places of tuition, just as are schools of music and of the fine arts—all necessary in their way for those whose needs they supply, but not an essential part of the supply of general education for the bulk of the boys and girls who have gone through the elements of instruction in a public elementary school, in the preparatory department of a higher grade school, or in the lower division of a school of the "grammar (classical) school" type. The effect of science and art grants upon higher grade schools is not satisfactory, as they exert too great influence upon the course of instruction given in the school, and much of the science teaching can only be fragmentary and of little practical value. The fifteen hours a week which have now to be devoted to the work of the science and art department in organized science schools renders the teaching of literary subjects an impossibility. The scheme thus laid before the commission has for its major the intention of the parent with regard to the child's future career. A fee should be charged in the higher grade school, though not sufficiently large to make the school self-supporting. Evening continuation schools should be deemed agencies for secondary education.

*Testimony of C. Bowdon, esq., head master of the Wesleyan Schools, Gateshead, formerly president of the National Union of Teachers, and representing that body before the commission.*

The members of the association, numbering 26,000 teachers, feel great interest in secondary education, and desire to see the methods of passage from one class of schools to another improved and made more easy both for scholars and teachers, considering that primary education would be greatly advanced by being brought into organic relation with secondary education. They wish that one educational authority should control the education of the country, central and local; and they consider this essential in order to secure efficiency in schools, because the secondary schools at present are under no proper control or really effective supervision. They say that if there were two authorities to control education, one primary and one secondary, there would be undue competition between the two authorities, as there is at present between those administering the money that is generally called the whisky money<sup>1</sup> and the school boards. The county councils are doing work that the school boards are doing, though the boards, being the first in the field, think that they have a right to do the work. They think that if there were one authority, instead of competition, there would be coordination, and that the one authority would be able to establish various classes of schools instead of there being rivalry between those two authorities in establishing the same class of schools. They also say that at present there is no convenient passage from school to school; that those who know the children in the elementary schools know which of them would be benefited by secondary education; that if there were an authority for secondary education only, that authority would have no knowledge of the wants and desires of the parents of the children in the elementary schools and could not provide adequately for those desires. They say that it is much better that things should grow naturally rather than that they should start from two different points; that if there were a local authority to control secondary education it would really deal more with a class of people than with the whole of a people, and that it would really be class education rather than secondary education. They say that a great deal of energy would be wasted, as well as public and private money, and that there would be a great deal of

<sup>1</sup>So called as the money for technical education is derived from the excise on spiritous liquors.

overlapping. If there were two bodies for the purpose of controlling education, there would be two sets of officials, for example, where one would suffice, and there would be two applications to the rating authority where one would suffice.

If there were one authority (local) for a large district, it would induce a number of educated persons to become members of that authority. Representing various interests, these people would see that there were various types of schools. No one who desires the good of the country would wish to have our schools made of one uniform character, and it seems that if there were a large body, authority being exercised over a great district, there would be much more chance for a diversity of schools than there would be if there were two authorities. As was said before, if there were an authority for secondary education only, that power would deal with it more for class education than for the education of the whole of the people in the country. The best area for a district is the administrative county [rural districts]. The commission of 1868 suggested more than one county, but the population has grown very largely since then. But even the districts for electing members of Parliament might be taken, as the people are accustomed to vote together; this would give about 50,000 souls to the district, but county boroughs (large cities) should not be dislocated.

The present school boards in towns should be elected by the rate payers, and should be enlarged by the admission of persons elected by teachers. To such a board of education should be committed all the primary and secondary education of the town. The schools should be free.

The secondary schools at present do not supply the wants of the vast majority of the people. They are too few in many places, and are unsuitable in character; that is to say, they are mainly classical schools. We have only, at the outside, 3,000 persons going to the universities; there are about 1,000 freshmen at Oxford and 1,000 at Cambridge every year. The majority of the people want their children not so much to go to the universities as to get that education which will enable them to take their places in the industrial occupations of the country, and it is evident that the so-called higher-grade schools are serving that purpose admirably. The great improvement in those schools to be effected is the lessening of the excessive science instruction.

*Testimony of the Right Reverend the Lord Bishop of London (a member of the Schools Inquiry Commission, 1864-1868.)*

The Schools Inquiry Commission looked upon secondary education in its report entirely as education to be paid for by the parents, and it is therefore necessary to look carefully around as to the proper manner of adjusting a system of free secondary education founded on that report with one for which the parents are to pay. It should be considered that parents will send their children to the better secondary schools in spite of the fact that such attendance costs money, and also that the social status feeling operates to the same end. It is impossible to have a regular continuation between the different classes of schools from the elementary to the lower grade of the secondary and from that to the higher grade of the secondary; but though each school must stand apart, it is nevertheless possible to form a ladder with picked boys. You can carry boys from a lower grade school to a higher if they have been carefully picked, whereas you could not carry average boys at all. With the average boy the lower grade must distinctly prepare for the higher and be practically a preparatory school for the higher, or else when the boy gets into the higher he is altogether thrown out. But with the picked boy, if you do not exceed a reasonable number, it requires really very little special adaptation to bring the boys into proper relations with the whole school system and course of instruction in the higher position. The mistake which is frequently made is that people suppose there is a very large number of boys who may be rightly picked out from the lower schools and put into the higher, whereas the number of boys who could be so picked out is really very small. It is doubtful whether it is wise to provide for the average boy a means of progressing

from the elementary school to schools of a higher kind. The thing to be feared is that the elementary school will step into the place of schools which prepare boys for commercial pursuits, clerkships in offices, and so on, which is a place they can not readily fill. It is better that those boys should be in really secondary schools, and secondary education should not be free, for though the plea of poverty comes in at all turns, it is difficult to see why the parent is to expect that his child should be educated beyond his own means of providing education any more than that his child should be fed or clothed beyond his own means of providing food or clothing. It is not a social feeling, but really a preference for a certain characteristic of the education given, that induces a preference of parents for a certain school. There can be no doubt that a school in which you have a large preponderance of boys of a very low social grade is not in that sense a very good place of education for boys of a much higher grade. On the other hand, if you have the preponderance the other way, the boys of the lower social grade are really the better for being in constant companionship with boys of a higher social grade. It is necessary to keep in view the cultivation of manners as a part of the education of the children, and not only the manners, but of what belongs to the moral principle of cultivated people. The average boy will hardly pass through the elementary schools until he is 14. The child must not be pushed, for it is important to note that a whole nation must go on very slowly in that matter, and you will find after your elementary education has been going on for a certain length of time you can teach higher subjects to boys of the same age than you could have done at the beginning, because their homes are already beginning to be affected. Those who have been in the schools have become the parents, so now a good deal of the teaching of what are called class subjects is very much better than it was. In the past the pressure to have such subjects taught was mischievous, and in the future it will be better than it is now.

It might be taken for granted that, secondary education being self-supporting, the impecunious classes would have to be content with elementary education, unless for the purpose of culling out the cleverer boys for the service of the State that portion of the impecunious community should be given scholarships which would enable them to enter upon secondary education. It is not in point to say that such conditions will incorporate, so to speak, class distinctions; the thing can not be helped. You have an enormous number that are excluded from the university. The State is not prepared to take upon itself all grades of education up to the top. As to the assistance of clever boys, the scholarships should be of small value and open to rich and poor, but in the case of the successful poor competitor the authorities should have the power of augmenting them to the extent demanded by the pecuniary income of the parent, but it is not probable that anything you could devise will enable children from the elementary school to compete for scholarships at Eton, for example.

Secondary education should not be managed on the same centralized system as primary education; there should be between him and the immediate governing body another.

*Testimony of Rev. T. W. Sharpe, senior chief inspector of schools.*

Secondary as well as elementary education should be free. The imputation that universally free secondary education will unduly increase the number of persons who are indisposed to manual labor is unjustified as the matter corrects itself. At one time in the elementary schools of England there were a great number of children who were endeavoring to become clerks, but there has been a distinct reaction in favor of the artisan class of late, since the wages of artisans have risen. The same thing would probably happen in a higher class of education. School boards are not a proper authority to govern secondary education, which should be committed to a county or provincial council. It is desirable from a theoretical standpoint that elementary and secondary education should be under the same authority,



but persons experienced in education, teachers of all classes, should be placed upon the county or provincial council. In regard to the attendance of children residing in the rural districts their traveling expenses should be paid to and from the secondary school they were compelled to attend.

In his evidence regarding free education the witness had had before him the pecuniary difficulties of clerks, poor clergymen, and poor doctors.

*Testimony of Sir John F. D. Donnelly, secretary of the science and art department.*

The science and art department in general deals with industrial classes; that is to say, with those whose parents receive for labor or as income in any form fewer than \$2,000 (£400). Secondary education is rather undefinable. Elementary education is intended for those who leave to engage in business at 12 or 13, secondary for those who leave at 16 or 17, and higher for the university student. Now, the elementary education of a boy who is going to leave school at 12 or 13 should not allow him to take up subjects which he can not carry to some definite conclusion by remaining until 16 or 17, nor those contemplating leaving at 16 or 17 should not have elements introduced that require a university career to carry out.

The work of the science and art department is an interpolation into the ordinary system of a literary school or a standing invitation to the foundation of a new school whereby in chemistry, for instance, £2 is given for every pass in the higher grade of elementary schools, £1 for every pass in the lower grade in secondary schools, and £1 for every pass in the higher grade of secondary schools [the sum annually so distributed amounts to £750,000]. Formerly the lower grade of science instruction in elementary schools was given £1 for every pass, but the county educational authorities have relieved the science and art department of encouraging such elementary instruction by giving a capitation on attendance. The schools that have taken up the organized science school curriculum are not, as a rule, the ordinary secondary or endowed schools, as they can not well give the time to that curriculum, and therefore are compelled to take one or two subjects only. It therefore follows that the organized science schools are elementary schools, and, in general, the department fosters secondary education in a narrow sense of the term, as distinguished from the general sense, for the organized science school is for the student who is going to work principally, if not entirely, in a scientific direction. The grants to organized science schools should be larger and with such grants should be conjoined the requirement that literary instruction should be given to a larger extent than at present in those organized science schools.

*Testimony of Sir Bernhard Samuelson, Bart., M. P., chairman of the late technical education commission and of the technical committee of the Oxfordshire County council.*

Witness would not aid technical secondary education unless some general education were present, as technical education can not be effectively given unless it is combined with general education; not only that, indeed, but for higher technical education good general education is absolutely necessary, for, as the technical education committee reported, "The best preparation for technical study is a good modern secondary school." Under the term "technical education" he would include everything which prepares a man or woman for the walk in life which he or she intends to pursue. Such instruction should be given in technical departments or classes attached to secondary schools, that is, as far as young people are concerned. There is very little reliance to be placed on technical education in the primary [elementary?] school unless it be merely some object lessons and drawing. If there were capacity for it, the technical education should commence at a very early age in secondary schools, or rather in preparatory departments of secondary schools.

It would be inadvisable to take the control of technical education from the provincial or county body having control of secondary education, and also undesirable



to have any central educational authority other than the minister of education, all the proposed functions of such a body being mainly retained by the county council and the rest of the responsibility fixed upon a single man, the minister of education, to whom should be intrusted the registration of private schools.

*Testimony of Mr. John Montgomery, assistant master in Parmiter's School, Victoria Park, and honorary secretary of Association of Assistant Masters, which body he represents.*

The associations of 460 members from all classes of secondary schools, endowed or unendowed, public or private. As to the qualifications considered necessary for a head mastership his association held that a degree is necessary in every public secondary school, as at present required by about one-third of the schemes of the charity commission, while in a majority of other cases it is required that he shall have either the degree or such other qualification as the governors may approve of. Of 596 schools for boys of which they had information, 503 have head masters who are graduates, to wit: From Oxford 156, Cambridge 196, Dublin 44, London 109, other universities in United Kingdom 12, foreign universities 1; total, 518; counting none twice, 503. Of the 596 head masters 283 are in holy orders. The association also held that the candidates for head masterships should be required to have five years' experience as assistant masters in a public secondary school.

The assistant masters demand that there should be a right of appeal in every case to the governing body of the school.

His association would also suggest that the charity commission require that the governing body of every school should once a year send in a financial return, which is not always done. By the courtesy of the charity commissioners the association has been noting down and investigating the various items in the financial returns, and in some cases, in order to get the financial return of a school, they have had to go back to the year 1886, though they have not gone back any further. The blank form issued by the charity commission is not, in their opinion, the best form, but in that form it is required that there shall be shown the yearly rate of payment to each teacher, but in nearly half the cases this is not done. In some returns the salaries of the assistant masters appear under the head of "assistant masters, apparatus," etc. Then the number of boys is not given in about half the cases, although required, and on the whole the returns are not well made. But from such information as they have been able to obtain they find that in well endowed public secondary schools that the average pay of the assistant master is about £150. They consider that assistant masters in public secondary schools are poorly paid, and that in founding secondary schools some provisions should be made for the salary of such masters. The schemes state as a rule that the governors shall fix a sum for assistant masters and apparatus, but in no scheme is there any provision as to what proportion of the endowment or how much per head should be assigned as the salary of assistant masters. Many cases occur where the staff of five or six or even more assistant masters receive no more than the head master. Such provision should be based on the minimum cost of efficient education per head and the assignment of a certain proportion of that minimum to salaries for assistant masters, taking into account the amount of available income and the number of boys.

All vacancies should invariably be advertised in the newspapers and be announced by no other means.

The following is an analysis of the approved schemes of the charity commission for the administration of secondary schools for boys:

|  |     |
|--|-----|
| Number of schemes .....                        | 409 |
| Appointment of head master:                    |     |
| Degree essential .....                         | 183 |
| Membership in Church of England essential..... | 31  |
| Appointment of assistant masters:              |     |
| In the hands of governors.....                 | 50  |

## Appointment of assistant masters—Continued.

|  |     |
|--|-----|
| In the hands of head master, subject to the approval of governors.....                             | 4   |
| In the hands of the head master.....   | 355 |
| Dismissal of assistant masters:  |     |
| By the governors .....   | 50  |
| By the head masters, with appeal to governors.....   | 42  |
| By the head masters, with appeal if expense has been incurred in setting up a boarding house ..... | 4   |
| By the head master, subject to approval of governors.....  | 4   |
| By head master .....   | 309 |
| Fixing of compensation of assistant masters:   |     |
| By the governors.....  | 51  |
| Assignment of a sum by head master, subject to approval of governors.....                          | 339 |
| Assignment of a sum by head master .....   | 14  |

[In the course of the examination of the witness his associate, Mr. Martin, interjected the following: "I should like to bring this fact before the commission that, under the present conditions, when a head master resigns his post or is dismissed he has to give notice to every assistant master on the staff, for the reason that the assistant masters are his servants and not the servants of the governors; so that when you dismiss the head master you dismiss every man in the school. I think that is a point on which assistant masters feel rather keenly." Of course this is in many cases a mere form, but it is practically applied in the case of a new head master having a system rather different from that of the retiring master.]

## NOTE A.

[Handed in by the Rev. E. F. M. MacCarthy, M. A. (See Q. 6395).]

*Analysis of occupation of parents of Past Bridge Street boys, year ending November, 1893.*

| Nature of occupation.  | Total. | Nature of occupation.   | Total. |
|--|--------|---|--------|
| Asbestos (manufacture of).....                                   | 1      | Engineering trades .....  | 154    |
| Bedstead trade (brass).....                                      | 5      | Classified as follows:  |        |
| Box (wood) trade .....   | 1      | Electrical.....   | 19     |
| Bookbinding trade.....   | 6      | Mechanical.....   | 120    |
| Brush trade.....   | 1      | Locomotive.....   | 7      |
| Book (sale, purchase, cataloguing) .....                         | 1      | Naval.....  | 8      |
| Button trade.....  | 4      | Fish trade (wholesale) .....  | 1      |
| Brass cabinet trade.....   | 12     | Grocery trade (apprentices) .....   | 8      |
| Building trade.....  | 23     | Glass trade .....   | 4      |
| Chemists' assistants (qualifying for matriculation) .....        | 11     | Jewelry trade (gold, silver, and electroplating).....   | 38     |
| Chemistry (assistant master, Waverly Road Technical School)..... | 1      | Laboratory assistants, viz, chemical, botanical, metallurgical, analyzing (alkali waste), South Staffordshire Waterworks Company, analyzing samples, brewery laboratory ..... | 19     |
| Cabinet trade (apprenticed).....                                 | 35     | Law stationers' trade.....  | 4      |
| Cabinet casemakers .....   | 4      | Lamp trade.....   | 14     |
| Carriage body making.....  | 9      | Musical instruments (manufacture of).....   | 3      |
| Confectionery trade.....   | 5      | Musical folio (Messrs. Rogers & Priestley).....   | 3      |
| Compositors (apprentices).....                                   | 17     | Metal trades.....   | 62     |
| Chandelier and electrical fittings.....                          | 15     | Machinists (i.e., smaller work than engineering).....   | 89     |
| Designing and modeling .....                                     | 5      | Mathematical instrument trade.....  | 10     |
| Die sinkers .....  | 19     | Nail trade .....  | 1      |
| Dentistry (practical) .....                                      | 2      | Mason, stone (apprentice) .....   | 1      |
| Draftsmen.....   | 50     | Telephone (instrument), Royal National Telephone Company.....   | 1      |
| Classified as follows:   |        | Offices.....  | 140    |
| Architects' offices.....   | 8      | Classified as follows:  |        |
| Art metal.....   | 10     | Government post-office department .....   | 5      |
| Builders' offices.....   | 4      | Accountants' offices .....  | 19     |
| Engineers' drawing office.....                                   | 8      | Brewing offices .....   | 3      |
| Stained glass (drawing office) .....                             | 3      | Factors .....   | 12     |
| Lithographers .....  | 15     | Solicitors' offices.....  | 12     |
| Ecclesiastical art work.....                                     | 2      | Builders' offices.....  | 9      |
| Drysalting trade.....  | 5      | Insurance offices.....  | 15     |
| Drapery trade (apprentices) .....                                | 9      | Estate offices .....  | 11     |
| Diamond mounting .....   | 2      |   |        |
| Enameler .....   | 1      |   |        |
| Engravers .....  | 18     |   |        |
| Classified as follows:   |        |   |        |
| Metal.....   | 11     |   |        |
| Wood.....  | 7      |   |        |

*Analysis of occupations, year ending November, 1893—Continued.*

| Nature of occupation.                   | Total. | Nature of occupation.                                    | Total. |
|---|--------|--|--------|
| Offices—Continued.                      |        | Pupil teachers (some sat for Queen's scholarships) ..... | 6      |
| Classified as follows:                  |        | Photographic business .....                              | 4      |
| Cotton (Messrs. Clark's) .....          | 1      | Printers' trades (various departments) ..                | 18     |
| Arts club .....                         | 1      | Rule making .....  | 4      |
| Timber office .....                     | 1      | Royal College of Science, London (stu-                   |        |
| Hay and straw .....                     | 1      | dents). Gained free scholarship tenable                  |        |
| Printer's office .....                  | 1      | as above for three years. £11s. per week                 |        |
| Corporation gas department .....        | 2      | allowed for board and railway fares to                   |        |
| Drysalter's offices .....               | 5      | and from home vacation periods .....                     | 4      |
| County court office .....               | 1      | Steam gauge making .....                                 | 7      |
| Electrical supply company .....         | 1      | Screw trade (machinist, Messrs. Nettle-                  |        |
| Engineers' offices .....                | 2      | fold's) .....  | 1      |
| Loan offices .....                      | 5      | Scale making (Messrs. Avery and Mr. H.                   |        |
| Stone and slag (Earl of Dudley's        |        | Bissecker, principally) .....                            | 13     |
| estate) .....                           | 1      | Saddlery trade .....                                     | 9      |
| Typist .....                            | 1      | Tobacco trade (wholesale manufacture) ..                 | 3      |
| Press (Daily Post) .....                | 1      | Tool makers .....  | 24     |
| Manufacturers' offices .....            | 13     | Tailoring trade (apprentices) .....                      | 9      |
| Land and building societies' offices .. | 2      | Timber trade .....                                       | 5      |
| Engineers' offices .....                | 4      | Training ship .....                                      | 3      |
| Carriage works offices .....            | 6      | Upholstering .....                                       | 7      |
| L. N. W. R., Mid. R., and G. W. R.      |        | Warehouse (English and foreign) .....                    | 66     |
| V. offices .....                        | 16     | Watch trade (apprentices) .....                          | 4      |
| Brokers' offices .....                  | 2      | Wire-worker .....  | 1      |
| Optician's trade .....                  | 3      | Wood carving .....                                       | 3      |
| Plumbing and sanitary engineering (ap-  |        | Wood turning .....                                       | 1      |
| prentices) .....                        | 16     | Total .....  | 1,040  |
| Provision trade (wholesale) .....       | 1      |  |        |
| Pattern makers .....                    | 14     |  |        |

## CHAPTER XIV.

### PAPERS ACCOMPANYING THE REPORT OF THE ROYAL COMMISSION ON SECONDARY EDUCATION.

#### REPORT ON CERTAIN FEATURES OF SECONDARY EDUCATION IN THE UNITED STATES OF AMERICA AND IN CANADA.

MY LORDS, LADIES, AND GENTLEMEN: I received instructions on the 27th of August last to proceed to the United States and make inquiries upon topics embraced within the province of the royal commission on secondary education.

In the first instance I received a paper entitled "Heads of information which it is desired to obtain from the United States of America," with a similar paper relating to Canada, and I was instructed to obtain a more complete answer to these inquiries than had already been obtained by correspondence. I came up to the office of the commission in London and examined the answers to this paper of questions which have already been received from some twelve prominent teachers and professors in the United States and from Principal Grant, of Kingston, in Canada.

I was also fortunate enough to secure an interview with the chairman of the commission, who gave me verbal instructions which enlarged the scope of my task. While giving due attention to the points raised in the "Heads of information," I am to keep in view the whole ground of inquiry which is undertaken by the commission, and, in order to enable me to judge of the questions at issue, I was supplied with various printed papers, by the perusal of which I may follow the lines of inquiry which the commission is pursuing. The chairman also pointed out that it would be necessary for me to conduct my work very rapidly, and to present my report early in the winter, and, since it may be difficult to complete a satisfactory statement within such a short time, the chairman suggested that I should forward letters or portions of report on any topic which seemed to me to be of importance; and, as I have spent a considerable time in the study of education in Germany, it was pointed out that I might profitably incorporate any experience I had thereby gained in questions where the comparison of German methods might be helpful.

Further, I was instructed to examine two reports which have, in previous years, been published under Government authority; the voluminous account of the common school system of the United States and Canada, presented by the Rev. James Fraser (afterwards bishop of Manchester) to the royal commission (1867),<sup>1</sup> and a brief account of American schools by Mr. Fitch, Her Majesty's senior inspector of schools, printed by the education department in 1889.

Under the present circumstances, it has seemed to me that it would be of little service if I were to attempt to prepare a sketch of the organization of secondary education in America or to describe any institution and methods in detail; indeed, the short time at my disposal makes such a task impossible. I have followed an

<sup>1</sup>Question 8, in the "Heads of information," is, I understand, intended to suggest a comparison between the conclusions reached in this report and the course of events in education during the interval. I found, however, that the written replies sent from America in answer to this question were not very helpful.



entirely different plan. Taking in order the topics embraced by the royal commission as sketched in the "Memorandum by the chairman, an outline of the order in which topics may usefully be dealt with in the report," I have gathered together the evidence which American experience seems able to supply, keeping in view the situation of affairs as we find them at this moment in England. I have given a number of references to documents which have been offered to me on every hand in my journey, and which a longer time would have enabled me to make more use of. The greater part of my time has been spent in interviews with teachers, to whom I was introduced by letters from members of the commission before leaving England, and by their aid I was enabled to meet with others whose experience and judgment are appreciated in their own neighborhood. I may add that my inquiries have not been confined to teachers and professors; I have found it very profitable to meet State officials, superintendents and secretaries of boards of education, as well as lay members of such boards, and my impressions have been assisted by conversation with men and women who have no direct concern with the management of education, with merchants, with ministers of religion, and with parents of children attending schools. Here and there I have also had the advantage of meeting English scholars now settled in American colleges or universities, and I have found not a few American teachers who have familiarized themselves with our English methods and who are able to offer valuable points of comparison between the plan of organization pursued in the various countries of Europe.

I ought to add that I have everywhere met with a most cordial welcome, and the greatest pains have been taken to put me in possession of every kind of information that I sought, and I have therefore been able to prosecute my inquiries more rapidly than would otherwise have been possible in the few weeks at my disposal.<sup>1</sup> On my arrival in the country on September 23, I first visited Washington and Baltimore, and spent several days with Commissioner W. T. Harris and his assistants in the Bureau of Education (see p. 636); since then I have visited, in order, Philadelphia, New York, Boston, and Toronto, spending a week or more in these cities or in their neighborhood.

It is, perhaps, necessary to emphasize the point of view from which the pages that follow are written. If they give the impression of a disparagement of our English education at the expense of what I have seen in America, this impression will be due to the aim which has been set before me. I have not attempted a critical estimate of American education; I have sought to *exhibit some of its merits* so far as these have a bearing upon the admitted deficiencies of secondary education in my own country.

2. I propose, firstly, to indicate from the experience of America the kinds of secondary schools which appear to be needed in a complete public plan of education; secondly, to discuss the nature of the authorities, local and central, who should administer these schools, and therewith the distribution of their functions in relation to endowed and private schools as well as public schools; on which will follow the discussion of one or two special questions which seem to need more detailed treatment, such as the financial maintenance of schools, the entrance, and the leaving certificate. A separate section has been devoted to the training of secondary teachers. Within this scheme I shall be able to refer to the nine questions in the "Heads of information," and to include the ground covered by the "Memorandum," so far as the experience of Canada and the United States seems to be of service.

<sup>1</sup>It would be ungracious of me not to mention the following, to whom I have been very specially indebted: The Hon. W. T. Harris, United States Commissioner of Education; Prof. Edmund J. James and Dr. Devine, of the American Society for University Extension, Philadelphia; Prof. Frank Morley, of Haverford College; Prof. N. M. Butler, president of the Teachers' Training College, New York City; Principal Ray Greene Huling, of Cambridge, Mass.; Professor Buell, of the Boston University; Dr. Melvil Dewey, secretary to the regents of the University of the State of New York, Albany; the Hon. G. W. Ross, minister of education, Ontario, Canada; and President Harper and Prof. Richard G. Moulton, of the University of Chicago.

## SECTION I.

3. Before entering upon these subjects, I desire to offer some general observations with reference to the principles which are at stake in the establishment of a system of secondary education. The contrast between ourselves in England as a people and the English race in America across the ocean lies mainly here, that in the most progressive States of America *the people believe in education*, and are willing to make sacrifices for the sake of their creed. I do not think that anyone who has gone about among American schools and seen the mode in which they are supported and continually extended could doubt that this faith in education is genuine and is distinctly characteristic of the most progressive parts of the country.

If it were not outside the purpose of this report it would be easy to trace the origin and the growth of this idea from New England, where it had its birth, to the West, which has been created largely by emigrants from New England, and, since the war, to the Middle and Southern States, where the same faith is being slowly acquired. Now this belief in education has had two effects. Firstly, in the refusal to limit public schooling to the rudiments of instruction; the high school equality with the primary school has been recognized as a part of the public plan of education. I have taken considerable pains to inquire whether the press or the people show any signs of objecting to the heavy school taxes which are required to support high schools; and, except in a few instances, I have always received the same answer—the common people believe in free high school education; every parent hopes that his own child may be clever enough to be advanced to the high school, and perhaps afterwards to college, and the idea that secondary education is only for the well-to-do gains no foothold. Everywhere in the United States where I have traveled the school tax is the most popular of all the local taxes, and in the Northwest its range is extended even beyond the high school to the support of State universities.<sup>1</sup>

Secondly, outside of the scheme of public education, we have presented in the United States an almost prodigal liberality in the establishment and support of private educational enterprises. On every hand colleges and universities and technical institutes are bountifully supplied with the gifts of rich men, and it is evident that this stream of wealth is the result of a national sentiment in favor of education. We have no parallel to this generosity either in England or in any other country.<sup>2</sup>

In a later paragraph I shall recur to the question of private endowment.

I desire to emphasize the importance of this abstract idea of faith in education, for it appears to me to indicate the only right basis for a public system of higher education. Our present system in England has been hitherto based upon another principle. We have seen that a minimum of elementary instruction, for children who can not obtain it otherwise, is necessary to national safety and progress, and must be imposed by authority and paid for by the public, as we pay for police and sanitation. Such a system needs to be either wholly administered or, at any rate, strongly controlled by a central authority, and such a system may properly be limited to the few branches of instruction which will achieve the aim desired. But it is wholly different with a nation that has learned, or is beginning to learn, its own need; the people of such a nation are competent, each in their own locality, to discover and supply their necessities, and they will refuse to limit their needs by any elementary code; they will vote for and will maintain many forms of secondary education for

<sup>1</sup>In the West, however, the tax is comparatively light, because a large sum is appropriated to education from the proceeds of public lands.

<sup>2</sup>At Harvard £70,000 per annum is regularly expected as a fresh endowment, and all the successful colleges of the Eastern States look to similar bequests in order to keep pace with the continually growing demands of educational development.

the public benefit, and they will adapt these institutions to their local needs far better than any central authority can do it for them.

Now, it is quite another question whether this belief in education is justified by its results, whether, that is to say, the money and time devoted to the higher instruction of a large number of young men and women is really well spent, and the problem presented is the one proposed in question 6 of the heads of information. "It has been said that the secondary schools of the United States turn out a large number of scholars whose circumstances would lead them to earn their living by manual labor, and particularly by agricultural labor, but who are unwilling or unfitted to do so, and have little prospect of finding congenial employment. How far, if at all, is this statement true?"

Now, the idea that young people can be overeducated seems to be wholly alien to the American way of thinking, and unquestionably the evils which are supposed to result from overeducation in Europe are not found in this country, for the social and economic conditions of American life are wholly different from those of Europe; and again, since education in America is a product of "the people," it has been rapidly adapted to the people's needs.

By economic conditions, I mean that immigrants do a large portion of the manual labor, and that the labor which is *not* performed by hired help is not regarded as beneath the dignity of a man or woman who has received a higher education.<sup>1</sup> With us in Europe, to be highly educated means to be brought into a higher social atmosphere, into a class which is dependent for manual aids upon lower classes. In America, the tendency in this direction is of course observable, but not to anything like the extent as among ourselves, and thus the highly educated man or woman is not necessarily drawn into another social sphere, but is regarded as being better fitted for those pursuits in life to which he feels naturally attracted. If the American boy does not take kindly to day labor in the fields, it is because there are plenty of other people brought into the country to do that work, and he prefers to gain an education which will give him "directive power"<sup>2</sup> in a more intelligent walk of life. If, after his education, he returns to agriculture, he will not work on his farm as a day laborer, but he will direct machinery or direct the work of others.

The above is an argument which applies to a new country more than to an old country, but the second argument will apply equally to any country. The American tells us that we can not give our children too much education, but we can give them useless education; and America illustrates more than any European country the need for continually *adapting our curriculum*<sup>3</sup> to the necessities of the times. No country, for example, has developed more rapidly or more successfully the method of manual training,<sup>4</sup> first by means of the kindergarten in the primary school and then by manual training departments in the secondary school, and by every kind of scientific and technical department in the university. This movement is now in course of development, and has proceeded with the greatest rapidity during the last five years. Professor Hinsdale, of Michigan, in replying to the commission on this question, looks to the cure of the evil, not by closing the high school doors to the laborer's child, but by preaching everywhere the real nature of education, and by convincing parents

<sup>1</sup> Numbers of students in American universities pay the whole or part of their expenses by labor, such as typewriting, printing, taking care of lawns, etc. See Catalogue of the University of Minnesota, p. 55. This is the case not only in the West, but at Harvard and Yale.

<sup>2</sup> This is a phrase given me by the Commissioner of Education, Dr. W. T. Harris, who looks to the development of this "directive power" as one of the main purposes of higher education.

<sup>3</sup> In European countries it is still held by most teachers that there is, or ought to be, a fixed formal plan of studies which should achieve the ideal of secondary instruction for every child, regardless of his future calling in life, or even of his tastes. In America this mode of thinking is not often found. (Vide Report of the Committee of Ten, p. 53, Bureau of Education, Washington, 1893.)

<sup>4</sup> For the latest information on manual training we have a voluminous report by a commission appointed by the Massachusetts State board of education. I have given their recommendations in an appendix.



and the public of the benefits which good practical education will bring with it, not only for success in business, but for the higher pursuits of life.<sup>1</sup>

There is another country exhibiting the same firm belief in education which we find in some of the States. I refer to Germany; and in Germany I venture to believe that the charge of overeducation is justified. I think there can be no question that there are too many men in Germany who have received an education which opens the doors to a few select pursuits and which closes the doors to many other pursuits. There are far more teachers and doctors and lawyers in Germany than the country can find work for.<sup>2</sup> I venture to think that this condition of things can only be prevented by placing the control of higher education more and more in the hands of local authorities and by relying upon the people themselves; unless this is done educational ideals will be set before the schools which have no correspondence to the necessities of life. The American secondary education no doubt fails to create as many scholars as we find in Germany, but it does start an interest in culture; it trains boys and girls to self-support and activity, it brings them into contact with social and civic life, and it leaves them with a freedom of motion which enables them to find a sphere and occupation in life where the young man or woman trained in the German school is comparatively helpless.

Hence the conclusion is reached that, while elementary education may properly be imposed upon a nation, public education of the higher type ought only to be organized in response to the people's demand, and hence it ought to be mainly under popular local control.

4. The whole problem of education is one which is only to-day beginning to be the subject of scientific treatment, and hence we can not hope for finality in schemes for the readjustment of national education. While we find in other professions a fair consensus of opinion on means and methods, in education no such agreement can be found. Every conceivable variety of practice is employed in different parts of the world, and even in different parts of the same country. Now, the present century has witnessed in every part of Europe the establishment of school systems, more or less complete, creating permanent means of operation by which the child is to be prepared for life. These schemes vary very much in the extent to which they control the individual school or teacher, but they all tend in the same direction, *to fix the forms of a school by the machinery of law or code*. Such a mode of procedure was inevitable at the outset both in countries governed by a strong central authority and in countries like England, where the desire for local independence was strong, but where the national sentiment in favor of education was weak. But in America we have a striking contrast; in place of the codes and systems of Europe every locality is master of its own educational machinery, and hence it is possible for new methods and ideas to have some chance of being tested by experiment. Up to the present time it is probable that the results of American education, conducted on the popular plan and with little oversight from higher authorities, are poor compared with the results obtained under a good European system; but it is a different question whether

<sup>1</sup> As an evidence that America was not educating too many high school boys, Dr. Harris showed me the results of an inquiry made by him when superintendent of St. Louis, to discover the positions in life held by the "graduates" from these schools. To these boys education had simply meant so much increased capital to invest at high profit in a business or professional career. The problem is one which is capable of scientific statistical treatment; an attempt at such treatment has been made by the director of physical training in Boston (Report to school committee; school document No. 8, 1894), based upon Dr. Farrar's Vital Statistics (London, 1885).

<sup>2</sup> In Ontario I found that the same complaint was being made. The rural high schools are said to have given to farmers' children an education "above their station," and they have deserted the country to come and live in the towns. So long as a stream of immigration supplied their places with new agricultural laborers the harm did not appear; but there is little immigration now and trade is bad. The remedy for this is surely not to close the rural high schools, but along with the general education to teach practical arts and branches of instruction connected with farm life having a close relation to the future calling of country boys and girls.



the *ultimate* result may not be better. It is, at any rate, very clear that if our present imperfect knowledge of education be once admitted the United States has a better opportunity of discovering and developing new pedagogic knowledge owing to the very want of system which characterizes its education.<sup>1</sup> The problem seems to be to organize a scheme which shall hinder inefficiency and waste without hindering the development of educational ideas.

In the first half of this century Germany was the great field for the production of educational ideas—Pestalozzi, Froebel, Herbart, and a host of others were free not only to meditate upon theory, but to test their ideas by the practice of the school. Since the strict establishment of the German school systems, these men have had few successors; and the best fruit of their labor is being inherited, not by Germany, but by England and by America. The kindergarten, for example, was banished from Prussia because the Prussian authorities did not approve of it, and it is only in these last two or three years that it has found recognition with the English education department; but in America it was easy for a single progressive town or city to make experiments with the method, and still easier for the success of such an experiment to lead to its adoption elsewhere.<sup>2</sup> I am convinced that there is in the minds of American teachers a desire to learn about education, a humility with reference to their present knowledge of the subject, which contrasts favorably with the attitude of the successful teacher in European countries. No doubt this humility goes along with a considerable amount of boastfulness about the results already achieved, and a conceit which is often not justified by the results; but this tendency to self-laudation does not hinder the eager desire to learn from every quarter.

5. These two observations lead to a third, to which I have already referred: That education in all branches, elementary and higher, ought, so far as is consistent with its aims, to be directed by local authority, to rely upon local support, and to appeal to a central higher authority only within very guarded limits. Fortunately, in England we have experience which justifies us in enunciating this principle. I take it that one reason why local authorities were given such large powers in the administration of the technical instruction act was because it had been found that our school boards had administered efficiently the more limited powers given them by the act of 1870; and in America I have found no one who desired to see "the people" deprived of the great authority which they possess over the administration of education, although the weakness of the United States system, which lies in the lack of a State central authority, is usually admitted at the same time. I propose in later paragraphs to deal with the problem here presented in detail. Here I wish merely to emphasize the principle to which, as I know, most English teachers are opposed, that secondary education needs popular control and popular support, if it is to achieve its aim.

Those who distrust local boards of education for fear of their ignorance of the subject, forget the rapidity with which knowledge on public questions is now communicated from place to place, and the ease with which those who desire can inform

<sup>1</sup>"Our system has a tremendous and overflowing vitality, which promises more for the future than the well-fitted machinery of England. Did you ever live in a country town during the week of a teachers' institute? It is a greater attraction than the new railroad or the circus. The air is saturated with educational questions. The teachers, often of the same social grade as the best of the residents, are received into the homes and made the central features of the excitement. Better still, have you ever been to a State or national education convention? The discussions do not strike one as being in the least shallow or vaguely general. \* \* \* Thus our country is permeated with educational life. England does not know much of it. Her teachers do not read professional literature, as ours do. They do not communicate popular enthusiasm for education as ours do, although they are often more highly trained."—President Sharpless, of Haverford College, on the Relation of the State to Education in England and America (No. 87, in publications of the American Academy of Political and Social Science).

<sup>2</sup>See "Annual Report of Bureau of Education, 1891-92," for records of the increase of public kindergartens in American cities. It should be noted that, as a rule, the kindergarten teachers are trained especially for kindergarten work; it is not thought sufficient simply to give primary teachers a superficial acquaintance with Froebelian methods.

themselves as to the best available methods. The United States exhibits, even better than our technical instruction committees, the possibilities in the way of training local authorities to understand educational problems.

6. No forms of education can be permanently established on a self-supporting basis. This principle, which is admitted in the case of elementary and of university education, has been denied in England in relation to secondary education, and it is true that in some cases in England successful proprietary schools have been established which pay their way, and which even return a dividend to those who have subscribed the funds, but I believe it could be proved, by careful inquiry into the history of English proprietary schools, that the proprietary system is one which can not be regarded as a permanent type, even if it were desirable that it should be so. In America, as in Germany, no one dreams of establishing a plan of secondary instruction on a scale of fees which will cover the expenditure; either the public purse must meet the financial need, or men of wealth supply the place of State aid. There are, of course, both in America and Germany a number of private<sup>1</sup> schools which are self-supporting, and such schools have a most important function in a scheme of national education; neither in Germany nor in America do we find prudent educators who despise the work of the private school, or wish to see this form of education disappear. But their existence does not supersede the public duty toward secondary instruction and the necessity for the establishment, in every part of the State, of public institutions which will supply the national need. These institutions, however wealthy many of the parents may be whose children attend them, can not be maintained by school fees alone. They have not been so maintained in earlier days when the cost of education was confined to the provision of buildings, teachers, and text-books; still less can they be so maintained in these days when the constantly expanding demands of education call for costly apparatus, of which earlier generations had no conception.

7. Finally, America is perhaps the only country in which the following principle is clearly illustrated—the principle of the *unity of all forms of education*. By this phrase I mean the doctrine that all institutions for educational work, from the kindergarten to the university, are part of the same system and need to be treated on the same general principles. Those who are engaged in this work are regarded in America as one body of teachers, whether men or women, whether professors in the university or teachers in the village school. The distinctions that have been made between the various types of education—represented by the term elementary, grammar, high school, and the like—are distinctions which only have a right foundation so far as they discriminate the various stages in the one educational process from childhood to manhood; so far as they have separated teachers into classes, they are the result of earlier imperfect conceptions of education which have an historical basis, but no basis in sound thinking. There is little in the nature of things to justify the barriers erected by school laws and by custom between one section of teachers and another, and I saw much in close intercourse with German teachers to make me regret that German governments maintain these barriers so firmly. I call particular attention to this doctrine because it has been reinforced by the movements which are now taking place in American education. Only the other day the most distinguished representative of the American educational world, President Charles Eliot, of the Harvard University, has taken occasion to enunciate this principle,<sup>2</sup> in order, as he says, to enable his university to do its work more efficiently, from the conviction that all sections of education need to be coordinated. The method by which he and others in America are seeking to secure this mutual

<sup>1</sup> I wish to use the term "private" in the English sense, to indicate what, in America, are known as private adventure schools, that is to say, schools which are the private property of the principal. In America, however, the term "private" is used to indicate every kind of school which is not administered under the laws of the State.

<sup>2</sup> The Educational Review, New York, September, 1894.

understanding and cooperation is, not by setting on foot a detailed scheme of administration for the whole State controlled by a government department, but by seizing hold of those points of contact where primary, secondary, and higher education meet one another, and by inducing teachers in each of these sections to join hands to the achievement of their common objects. The same spirit is shown in the National Educational Association, which is probably the most influential society of teachers in the world, comprising all ranks of teachers, from the university downward. Its most recent task has been to set the various committees to work which have dealt with high-school curricula, resulting in the now famous Report of the Committee of Ten. On similar lines the Ontario Educational Association has been organized, with departments for kindergarten, primary, high-school teachers, inspectors, and trustees. They hold some sessions of their convention together and some in departments. (See Report of Minister of Education for 1892-93, pp. 110-115.) When this spirit of cooperation has once been established, it may be possible to develop a State system of administration which will provide a suitable basis for every type of school without hampering the needful independence of the teacher and of the local authority.

At present the United States seems to be the only country in which the lines of demarcation between elementary, secondary, and higher education are kept in due subordination. In Germany the separation between elementary and secondary instruction is absolute, and in all countries which have received their educational impulses from Germany we find a similar distinction. I venture to believe that the United States have not lost by following the other principle. In England our secondary instruction, owing to its lack of organization, is in danger of losing its own standing ground. On the one hand, the elementary school system has encroached upon its borders by means of higher grade schools; on the other hand, the older universities control it at every point by means of written examinations. Our secondary schools need to work out their own destiny, untrammelled on both sides, while cooperating closely with primary teachers and with university teachers.

#### SECTION II.—*The kinds of schools required and the work done by each.*

8. In my inquiries in America to determine the limits of secondary education, I found that there was no universal agreement on the subject; for the public system places under local control three types of schools—the primary, the grammar, and the high school, and the commencement of secondary instruction lies somewhere in the grammar school. The primary school gives a five years' course of instruction up to the age of 9 or 10; the grammar a four years' course up to 13 or 14, which is succeeded by a high-school course up to 17 or 18; and in some cases the same local authority will add a college course or a normal school course, carrying on the education up to 20 years of age; and at no period is any strict boundary line drawn prescribing that secondary instruction shall begin at such an age or end at another. Since, for various causes, instruction in American schools has proceeded at a slower pace than in European schools, a child who has completed the grammar school course at 14 has usually not advanced further than the European child who has completed the elementary course at 12; but, in order to reform this state of things, it is proposed not to commence the high school at an earlier age, but to introduce what are called secondary school subjects into the grammar school course.<sup>1</sup> Nor, as we have seen, is the distinction between elementary and secondary instruction maintained by a separate classification of teachers such as prevails in European countries. A large number of teachers in American high schools are women who have had a normal school training, and who have afterwards taught in primary or grammar schools, before taking a class in the high school. A school board, managing a number of

<sup>1</sup> Can School Programmes be Shortened and Enriched? by Eliot, Macalister, W. T. Harris, and others (pp. 101-115, in Report of Proceedings of the Department of Superintendence of the National Educational Association, Washington, Government Printing Office, 1888).



city schools, may appoint either primary teachers or teachers who have been educated at college; a most important work in secondary schools is done by "college men," but there is no law which creates a distinction between one class of teacher and another. Hence the term "secondary" has only a vague signification in America; it is used in the Bureau of Education<sup>1</sup> to cover all schools above the grammar school, and Dr. Harris has made a distinction between primary and secondary education for the purpose of his reports, similar to the distinction which prevails in European countries. He holds that primary instruction should be regarded as ending with a knowledge of the language, history, and geography of the home country, of arithmetic, and the first beginnings of natural science, and he terminates this period of study with the American grammar school; but, as we have seen, it is one of the objects of reformers at the present moment to "enrich the grammar school course" by introducing higher subjects, such as foreign languages, algebra, physics, and the like before the child enters the high school.

I have inserted the accompanying plan in order to illustrate the differences between several countries in determining the limits of secondary instruction. The United States and Ontario make the three grades of education consecutive. In Germany and in France elementary and secondary teaching overlap for some five or six years; in England the two courses run on different lines from the beginning.<sup>2</sup> I attach importance to the question of the inferior limit of secondary education, because it involves a determination of the financial support which should be given to secondary schools. If we presume that many secondary schools now existing may be supported in the future, or new schools may be aided, on a method similar to that of the technical instruction act, by grants of public money, the question will be raised, whether, in apportioning such grants, allowance should be made for children under the limit of age at which it is decided to distinguish secondary education from primary education. On the American plan our legislation would classify the kindergarten and the preparatory departments of our present grammar and high schools as a section of primary instruction, and would presume such children to be in primary schools up to the age of 14. On the other hand, the German and French system, while permitting the child intended for a secondary school to commence in the primary school, takes him away from the latter after two or three years, in order to prepare him separately for a special course in after years, and in England the secondary school does its work entirely apart from the primary school.

The American plan is democratic, for it delays as long as possible the division between the child intended for the university and the child intended for the workshop; the German plan tends to narrow and specialize its education at too early an age. My own opinion is that it would be better for all our English children to be educated together in the primary school until the age of 11 or 12, no secondary instruction being recognized by law before that age. The English practice of absolute separation has surely been injurious both to primary and secondary instruction; the education of young boys and girls in our endowed and private schools is the least satisfactory portion in the whole field of secondary education. In this, as in many other problems of politico-social investigation, we are able to learn from our Greater Britain the trend of popular impulse among ourselves, and to forecast the conditions which are likely to environ us in time to come. If there is no valid reason in the nature of secondary education for separating the child of the professional man from the child of the workingman in the first years of school life, we may be sure that "the people" (to use the American phrase), as they gain a stronger voice in the control of national education, will not encourage this separation.

There is only one valid reason why a family of culture should object to permit its

<sup>1</sup> Paragraph 13, p. 636.

<sup>2</sup> It is true that a considerable number of primary school children are now going forward at about the age of 12 into the grammar schools of large towns and into higher grade board schools, but this is only a recent innovation, and is confined at present within small limits. (See plan opposite.)



children to sit side by side with the children of a lower class—the fear of moral contamination. This reason prevails in those parts of the United States where such contamination is to be feared—for example, in the large cities into which low-class immigrants are constantly pouring, and in many parts of the South. Under such conditions educators can only combat the mischief by training teachers who will understand how to watch over the habits and character of the little ones. Apart from such fear of contamination, it would surely be of benefit to the nation at large if our little children, of the rich and of the poor, in villages and towns alike, could be gathered in infant classes and set out upon their life's journey in company.

At the other end of the scale there is very little difference of practice between England and elsewhere. The superior limit of secondary instruction is determined at about the age of 18 or 19. In America it is often lower, but this is because the arrangements of the college and university are of a special kind which is not found elsewhere, and to which I need not further allude.

9. In comparing types of secondary schools provided in England and in America, we find that in England we have nothing corresponding to the American high school, and I believe that a large gap in our educational system would be supplied by providing schools of somewhat this type in England. The characteristic features of them may be described as follows:

(a) They are governed by the same school board that governs the primary schools and are supported from the same funds.

(b) They admit children by entrance examination after completing the primary and grammar school course, and carry on their education so long as the parents wish, sometimes until they are ready to enter college, but more often up to about the age of 16—that is to say (to use our English phraseology), many of them are first-grade secondary schools, but most of them are second-grade schools.

(c) They are found almost everywhere, in the country as well as in the large towns, as an integral part of the public school system.

Perhaps the most encouraging feature to be observed in the development of American secondary education in the last 20 years is the growth of small high schools in country districts and the desire of the people to have these schools and their willingness to pay for them. In New England such schools have been established for many years, but in the Middle States the movement is of more recent growth. Such rural high schools no doubt lack many of the advantages of a large city school, but their work is by no means to be despised.<sup>1</sup> The boys and girls that attend them very often come from a distance of 3 or 4 miles. In Massachusetts the law now compels a township which has no such school to pay for the conveyance of its high-school children to a school in the nearest township, and to contribute toward their education there.

The curriculum of the rural high school usually includes Latin and a modern language, but scarcely ever Greek. The principal is very often also appointed the superintendent of the elementary schools in his township, and thus the work of the three grades of schools—primary, grammar, and high—is coordinated. Such supervision is, of course, not sufficient by itself; as we shall see below, the lack of proper inspection is one of the main deficiencies in the American school system.

The city high schools are usually large buildings, often containing hundreds of children. The schools of the city of Boston may be taken as a type of the rest. There is, first, the Latin school, which is distinguished from the rest by teaching Greek and offering special preparation for the university; there are the English high schools, which include Latin in their course, but pay most attention to mathematics and natural science, and there is the manual training school, which devotes half of its time to drawing, metal work, or woodwork, and the other half to mathematics, literature, and science. This last type of school is novel and has still many enemies,

<sup>1</sup>See, for example, reports from principals in annual report, 1892-93, of the New Jersey board of education.

but I have found that most writers on education in America have given it their approval.<sup>1</sup>

In the United States these high schools are always free; in Canada a small fee is usually charged, but the fee is never so heavy as to prevent a poor boy from attending, and I am told that it is possible to get a remission of the fee in cases of special necessity.

The discussion on overeducation in a previous paragraph will have served to answer, from the American standpoint, the objection of free schooling. When I have asked an American why the son of wealthy parents should get his schooling for nothing, it has been pointed out to me that the parent pays a much larger proportion of the school tax than poor parents have to pay, and he adds that the high schools are really maintained by the wealth of the country for the benefit of all, rich and poor, who need them.

It certainly appears that the question of school fees, as a consideration in the provision of public education, has but small weight in a democratic country. In Germany fees are, as a rule, demanded even in the primary school; but in every stage of education parents who privately give evidence that they can not afford to pay the fee have it remitted to them. When once it is granted that secondary education can not be self-supporting, and when it is further granted that children of promise ought to be encouraged to mount the educational ladder, there seems little reason for embarrassing the school organization by a complicated system of fees.<sup>2</sup> Our English system of remitting school fees by means of competitive scholarships presents many undesirable elements which our foreign critics are more prone to deplore than English teachers are to admit. It is sometimes overlooked in England that the parents of poor children are not likely to keep the children at school longer than is necessary, even if the secondary schools charge no fees at all, for the burden of maintaining the child at home in place of sending him into trade is a serious deterrent unless both the parents and the child are willing to make sacrifices. What I have seen and learned of the American popular high-school system convinces me that our English people ought to *have liberty to tax themselves* for such an object, and ought to be encouraged by State aid to establish high schools for themselves *wherever a popular demand for them arises*. It is characteristic of the American system that these schools are placed within everyone's reach; it is considered worth while to establish a high school in a township, although only 40 or 50 children are likely to attend it.

There are no statistics in America to enable us to determine what proportion of secondary school children are in boarding schools; but I imagine it does not rise to more than 5 per cent, while in England we have at least 50 per cent in boarding schools. It is held by many English teachers that it is an advantage to the child to be educated away from home, but looking only at the matter of cost, it is clear that the English parent pays many times more for the boarding school-education of his children than the American pays in the school tax which provides for the high-school education of his children. I do not feel at liberty in these pages to discuss the controversy of the boarding and the day school, but I think it will be generally conceded that there is a demand among English parents for good day schools, and there are some eminent teachers who hold the opinion that the peculiar educative features of our good boarding schools can be in a measure grafted upon the day-school system.<sup>3</sup>

10. Outside of this public high-school system, we find in America all the types of English secondary schools except the proprietary school. I have inquired again and

<sup>1</sup>It may be compared with the École Diderot in Paris. See Fitch, Memorandum, p. 29. In the list of reports I have included accounts of some manual training schools and papers relating to them.

<sup>2</sup>If it is possible to speak of "tradition" in America, it would be fair to say that there can be traced a tradition of free high-school education in America from the time when the first grammar schools were established in Boston and elsewhere. This was a tradition brought from England in days when free education was not so distrusted as it appears to be in the present century.

<sup>3</sup>I refer to the proposal, carried into effect at Clifton, Bedford, and elsewhere, of giving "town" boys the benefit of the house-tutor system.—See Journal of Education (London), September, 1884; also Sir J. Crichton Browne, in The Book of Health (Cassell & Co., 1885).

again in the Eastern States to discover whether there are any schools or colleges which are established on the joint stock plan and which pay dividends. I have found that occasionally schools have been established by means of shares, but in none of the cases of which I heard did the articles of agreement permit the payment of a dividend.<sup>1</sup> There are, for example, in Pennsylvania some dozen State normal schools established to give a boarding-school education to elementary teachers and to others. These were built by means of the subscriptions of people interested in the prosperity of their own neighborhood, and the State board of education gives them a helping hand. Half of the trustees are elected by the stockholders, half are appointed by the State board, but no dividend is paid. The whole of the profits are spent upon the improvements of the education. Endowed schools are of many kinds, but they bear a small proportion to the high schools. They are absolutely independent of the State board, and if there are abuses in their management, no public authority is capable of correcting it; nor does such interference seem at present to be necessary, because their prosperity depends upon their being able to offer an education equal to that of the high school. The best of them, of course, being amply endowed with funds and charging high fees to parents, are able to give a better education than that of the high school, and these schools are known as "fitting schools" for Harvard, Yale, or Princeton universities.

I have already pointed out that these schools, including the private-adventure schools, are all called "private schools" in America; and the question is sometimes asked whether the feeling in America is not growing in favor of private schools as opposed to the public-school system.<sup>2</sup> I discussed this question very fully with Commissioner Harris, who, through his statistical bureau, is able to judge accurately of such a movement. He made it clear to me that the slight increase that had been observed in private schools some three years ago, although considerable in itself, was very slight by comparison with the immensely larger number of public schools. The disproportion between the two is entirely different from anything which we have in this country. The reasons for an increase in private schools in America, when it occurs, are special.<sup>3</sup> (a) Parochial, Roman Catholic, or Lutheran schools will, in one State or another, be sometimes provided in opposition to the public elementary schools; and, indeed, the only opposition to the public school system of America comes from the Roman Catholic Church.<sup>4</sup> (b) In the cities an increase of wealth causes an increase of private secondary schools, for people of means often prefer to indulge their personal tastes in the education of their children; on the contrary, a period of bad trade sends the children back to the public schools. (c) When the public school system is notoriously inefficient or is deficient, then the private school supplies the need.

"The private school provides for certain needs that the public schools can not or do not provide for in some localities. There is a margin, therefore, for this kind of education, and it is likely to increase slightly with the increasing wealth of the country. Probably its maximum limit is somewhere in the region of 16 per cent, or 1 in 6, a limit already reached in some States of the North Atlantic Division.

"The feature of the private school that causes its increase with the increasing wealth of the country is not so much that it provides for the separation of one caste from another, nor in that it provides for religious instruction within the limits of a particular denomination, but that it provides for exceptional cases. Wealthy people are able to gratify their peculiar notions as to the course of study and the

<sup>1</sup>In Canada there are several proprietary schools on the English plan. I had no opportunity of making inquiry as to their success, financially or otherwise.

<sup>2</sup>Question 9 in the "Heads of information" runs as follows: "Has there recently been any considerable increase in the principle of private schools in your State? If so, to what do you attribute this increase?"

<sup>3</sup>Question 9 in "Heads of information": "Has there recently been any considerable increase in the number of private schools in your State? If so, to what cause do you attribute this increase?"

<sup>4</sup>See paragraph 27.



kind of discipline that they desire for their children. The private school depends upon personal or corporate enterprise. This enterprise is on the lookout for new subjects of study, new methods of teaching, and new preferences in any direction. It caters for special needs and tastes, offering new devices while they are in the doubtful stage of experiment.

"When the private schools have demonstrated the utility or general popularity of any new departure, the public school boards and superintendents gradually introduce the improvements into the schools supported by taxation, and the private schools lose the pupils that had been attracted to them by their specialties. This is the wholesome feature in the private schools; it saves the bulk of the school system from wasteful experiments. One need only think of the process now going on with reference to the kindergartens, manual training, physical exercise, cooking schools, natural science instruction, and such new movements which are slowly or rapidly gaining a foothold in the public schools.

"Again, the private school is a safety valve in many ways. When the school boards or school committees become niggard in providing good teachers and commodious school buildings by a sufficient outlay of money in salaries and building funds, the best teachers are drawn off into the private schools. The majority of the people see this result with uneasiness, and a change is soon effected in the membership of the school committee by popular election.

"On the other hand, capricious parents who furnish an element of perpetual friction so long as their children are in the public schools, find what they are seeking in the private schools, and can get the requisite variety by changing from one school to another as often as they like."—(W. T. Harris, Commissioner of Education, in article Education in the United States, Shaler's *The United States of America*.)

I found that Dr. Harris's views were, in the main, those of other teachers, including private-school masters, whom I once or twice had the pleasure of meeting. I have found no signs of antagonism between the private-school master and the public-school master, such as sometimes shows itself in England; the place and function of both are recognized, and in the Northwest, where scarcely any private schools are to be found, the opinion is expressed that the educational system suffers by their absence. But, on the other hand, no one suggests that the private school system should be incorporated by means of State aid with the public school system; the distinctive virtues of the private school appear in its absolute independence of State control and State support.

There has never been in the States a condition of things similar to what we find in England, where one-half of the secondary education is being undertaken by private school teachers, and it would obviously be a great hardship and injustice to establish within a brief period a large number of public institutions, which would deprive these teachers of their bread. It would surely be possible to permit local school boards to establish high schools at low fees—subject, however, to the consent of some central educational authority, which would be charged by the legislature with the duty of seeing that such injury to honorable private enterprise was avoided, or that the private teachers received adequate compensation; and, perhaps, as has happened in some parts of New England, struggling grammar schools and private schools might here and there be taken over into the public school system.

It ought to be observed that the public high schools of America do not supply the whole demand for secondary education. In some quarters the people would not pay more than they are now paying in taxation; in other quarters well-endowed private schools already exist; but in the most progressive States the aim is always made to admit every child whose parents wish it to enter the high school, and the plan which prevails, e. g., in Philadelphia, by which grammar-school children can only enter the high school through a competitive examination, is condemned elsewhere.

The distinction which we attempt to make in England between first-grade, second-



grade, and third-grade schools, is not regarded in America as so important, partly because every school desires to make the most of itself and dislikes to be classified as of lower grade than its neighbor. There is, however, a considerable movement in favor of defining more strictly the scope of each kind of high school.

I venture, then, to urge that our principal need in England is for a number of people's high schools, mainly of the second grade, and of such low fees that the poorest children can attend if they will. Such schools will probably also be attended by the children from cultured families, for the degrading influences which may come from contact with gutter children in the primary schools will not affect the high schools, since such children will never rise beyond the primary grades. These high schools would offer curricula adapted to modern needs, not only for pupils intended for the university, but still more for those looking forward to commerce and manufacture. And not the least important of the functions of the American and Canadian high school is to give a secondary education to those intending to teach in the primary schools.<sup>1</sup>

Side by side with these schools the endowed schools would continue to flourish, and ought to look for support not only to State aid but to the generosity of the wealthy; indeed, I greatly doubt whether in England or America secondary education will be adequately supplied out of public taxation. Even the public high schools are now beginning to look to private wealth, through gifts of school buildings and libraries,<sup>2</sup> in order to supplement the public exchequer, and there is no reason why such gifts should not be devoted to public education as readily as they are given for a park or for a people's palace.

11. Here is the proper place to deal with the question of the coeducation<sup>3</sup> of boys and girls. There can be no doubt that the general public opinion in the United States and in Canada is in favor of coeducation. The immense majority of American boys and girls have been educated together at all stages of school life, and it is only here and there that exceptions are found to this rule. The Bureau of Education is now publishing a report on the question, containing the opinions of a large number of teachers and of well-known men and women outside the school, and it is clear that those who distrust coeducation are few in number. I am convinced, however, that this minority, although small, includes a number of very thoughtful and anxious teachers who have watched, perhaps with greater solicitude than others, the development of character in the young. I met a few such teachers. One, the principal of a New England high school attended by some 500 boys and girls, admitted that his position involved grave responsibilities, yet, on the whole, he thought that the advantages of coeducation outweighed the disadvantages, if the school were in the hands of conscientious and vigilant teachers; and, although feeling these anxieties for pupils during the high-school period—that is to say, between the ages of 15 and 18—he saw no serious danger in coeducation at college. On the other hand, I found that an ex-president of an important woman's university realized the serious dangers in coeducation during the college period, but desired to see boys and girls educated together until they came to college. Hence I should conclude that a certain amount of uneasiness among thoughtful persons is felt on the subject, especially in large cities, where children are less under the eye of parents than in the country; but that everyone, without exception, approves of boys and girls being educated together until their high-school age. The only possible objection to this plan might be found in very low and crowded neighborhoods, where children might come from vicious homes.

<sup>1</sup>"More high-school pupils look forward to teaching than to any other immediate occupation. The rural districts draw more teachers from high schools than from any other source."—Report of Inspector of State High Schools, 1894 (Minneapolis, Minn.).

<sup>2</sup>As one example out of several see, in report of the Cambridge school committee, an account of the manual training high school, presented to the school committee by its founder, Mr. Rudge.

<sup>3</sup>Question 1 in the "Heads of information" reads: "What is your experience in the education of boys and girls in the same day schools, or in the same day classes? (2) What is your opinion of the working of the system, and as to the conditions most favorable to it as regards age of scholars, and size of school?"

In view, then, of the possible establishment of high schools in England, I think American experience would at least justify us in establishing high schools for boys and girls together where a scanty population permit only of one school. In Canada, Ontario follows the American plan, Montreal the English plan, and I found that in Ontario the advisability of the American plan is scarcely disputed.<sup>1</sup>

Allied to this is the question of the employment of women or men teachers in high schools, and I venture to urge that it is almost as important as the question of coeducation. England is perhaps the only country in which it is the custom to exclude men teachers from a share in the education of girls, and America differs from Europe in giving women teachers a share in the education of boys. I found opinion in America to be somewhat as follows: It is advantageous for boys to be brought, to some extent, under the influence of women teachers during the whole period of school life, and for girls to be taught, to some extent, by men teachers. No doubt, however, women teachers are employed too extensively in the teaching of boys,<sup>2</sup> and simply because they can be paid lower salaries; but the entire exclusion of women from boys' schools would not be regarded with favor in any section of school work.

The women teachers, it is said, usually excel in patience and steadiness of application to the *details* of school work, whereas men teachers are needed for organizing and directive power. My own conclusions, from what I saw in America, certainly confirm this estimate. I believe that if women teachers in America evinced more power in organization they would more frequently be placed at the head of large schools.

12. It should be noted here that the primary and grammar schools and the various forms of the high school do not cover the whole range of city or county school boards. The attempt is made in most large cities to do something for the needs of special classes: (a) For pupils who have special deficiencies—for example, the deaf and dumb, and the blind—and for disorderly children who are unfitted for the ordinary school. (b) For students desiring to be trained as teachers. Most large cities have their own normal schools, although it does not follow that all the teachers of the city are required to have passed through them. (c) For the needs of technical education.<sup>3</sup> The problem of technical education has received considerable attention in America, not indeed to the same extent as in England or Germany, but valuable experience has been gained during the last ten years. The problem presents itself in two aspects. Firstly, how shall the future needs of the child during its period of general education be allowed to modify the curriculum of the secondary school? Secondly, what provision can be made for technical education *after* the school age, and how shall the child be conducted from the one to the other?

(1) In the American high school, as in the English grammar school, the demand for technical education has resulted in the substitution of technical subjects in place of Latin and Greek, or in the establishment of new classes, or new schools, in which technical subjects shall have the chief place. Formerly the future needs of the child in the secondary school were only studied in the secondary school with a view to prepare him for the university; but, as I have already pointed out, the multiplication of high schools in America, supported and controlled by the people, has led to the development of varieties of courses of study, which will suit the child intended for business or for manufacture. At the same time, this movement is only now in progress; and it is probable that the majority of American high schools still

<sup>1</sup>It should be noted that coeducation can be much more safely adopted in an educational system where children are educated together from the first years of school life, and where society, as in America, has become habituated to a less restrained and watchful attitude toward the association of young people of opposite sex. It would probably be unwise for a high school to educate together boys and girls who had not become accustomed to education in the primary school.

<sup>2</sup>In the States a mixed city high school will usually have about one-quarter of the staff men and the rest women; in Ontario the proportion is the other way.

<sup>3</sup>"Heads of information," Question 4: "What has been found to be the best way of bringing technical into proper relation with general education in your secondary schools?"

offer a general education with no specific bearing upon the child's future employment. The movement in favor of differentiation is a new movement, and it is obviously beset with difficulties, especially the difficulty of finding funds to equip the new departments and efficient teachers to conduct them; but the principle involved is now generally conceded, namely, that the secondary school can not adopt any general course of study to be universally prescribed as the best form of secondary education for every child, and that the educational ideal is not lowered or compromised by regard for the demands of the child's probable career.

As an outcome of these ideas, we have the manual training high school and the alternative courses of study drawn up by the committee of ten. These are the two most striking features in the development of American high schools during the last ten years.

(2) The provision of technical education after the school age does not call for any special comment. Sometimes technical institutes, such as the Industrial Art School in Boston, are maintained by school boards, but, as a rule, this work is left to be done by private endowment. It is felt that technical education is a part of higher education, and higher education, except in the Northwest, is usually left to be provided for by private endowment. There is, however, one great exception to this rule—the nation has endowed scientific agriculture by special grants from the Federal Government.<sup>1</sup>

### SECTION III. *The authorities to be created and coordinated, with the functions and powers which may be given to each.*

13. The problem of school administration is complicated by the variety of authorities and functions which have to be provided for even in the simplest system. We may tabulate as follows the various functions that are undertaken in America by one authority or another:

(a) *The erection and maintenance of buildings.*—(1) Of schools; (2) of training colleges, technical institutions, or universities.

(b) *Teachers.*—Appointment; payment; issue of certificates, either temporary or permanent, local or general; and herewith regulations for the training of teachers and control of training institutions.

(c) *School funds.*—For salaries, for buildings, for libraries and apparatus, for teachers' pensions, for text-books, for scholarships, for inspection and superintendence.

(d) *Inspectors' and examiners' functions,* whether visitatorial or educational, in relation to teachers, to pupils; their appointment and payment.

(e) *Pupils.*—Terms of admission to the secondary from the primary school, and to the higher colleges and universities from the secondary school; by certificate, by competitive examination, by scholarships. Regulations to check truancy, and for taking an annual census of all children of "school age" in each district.

(f) *Codes and courses of study* may be limited to a general plan, such as indicates merely the type and title of the school; or may prescribe an actual curriculum, or may impose a detailed syllabus with text-books.

(g) *School fees and text-books.*—These may be supplied by parents or by public authority, and the text-books may be chosen by the school board or by the superintendent instead of by the teacher.

(h) *Regulation of the length of school studies,* the school day, and the school year, and of vacations and single holidays.

(i) *Advisory functions.*—Publication of reports, statistics, and accounts of educational progress.

I propose to discriminate between the various areas of school administration and to observe how these functions are distributed among them.

*Scope of the Federal Bureau of Education.*—Dr. W. T. Harris, at Washington, kindly

<sup>1</sup> See Annual Report of the Bureau of Education, as well as the report of the State boards which receive and spend the annual appropriation.



supplied me with a number of copies of a pamphlet describing his work, which I have already sent to the commission, and it will be observed how carefully Dr. Harris distinguishes the work of his department in contrast to that of an executive authority. Without itself undertaking any educational act,<sup>1</sup> the Department assists others all over the States, both individuals and corporations, in the discharge of their tasks by supplying them with information. Its duties are, in fact, similar to those of the department of labor or those of the National Association for the Promotion of Technical and Secondary Education in England. One important part of the work of the Bureau is statistical, and every student of education in the United States finds his indebtedness to the material supplied by the annual report. This statistical work must, of course, be undertaken by the central authority of any nation which organizes education. Unfortunately the independence of the different States seems to make it impossible for the Bureau to *compel* the production of accurate reports, and, in consequence, some of the conclusions reached in the statistical department are in the nature of estimates rather than absolutely reliable conclusions.

In addition to this statistical work, specialists are employed to inquire into foreign systems of education, and, in fact, the department may be regarded as a laboratory for scientific research in the field of comparative education.<sup>2</sup>

And again, the Bureau is expected to watch the important educational questions of the day, and assist in their solution by means of its central position and distributing power. Thus in the last few years it has dealt with libraries, which are usually regarded as a part of the educational plan, and has published useful catalogues which may be employed by any local authority desirous of encouraging good taste in literature. Recently it has made inquiries on the question of coeducation, and, as I have already observed, is publishing a monograph on the subject. Last year, when the National Association took up the question of courses of study in secondary schools, the Bureau appropriately offered its services in assisting to collect material and in printing and publishing the report.

This large field of labor is somewhat costly. The office receives an appropriation at present of £14,000 per annum. It is regarded as a subdepartment of the Department of the Interior.

There are, it seems, two reasons which justify the expenditure of this large sum. Firstly, education in these modern days makes demands similar to those of commerce and agriculture and scientific research. Every worker in one corner of the field needs to be supplied with material collected from the experience of the country or of the whole world, in order to enable him to work efficiently. Naturally this principle is admitted in the New World more readily than in the Old, for the newer countries have few traditions and are more ready to learn.

Secondly, the principle indicated in paragraph 4 supplies a special reason for the study of comparative education. When once it is admitted that the whole range of education may be subject to criticism and reform, we are compelled to examine into every variety of educational enterprise in order to discover what records of successful achievement may be found which will help to guide our efforts.

The following paragraph from the report of the Province of Ontario,<sup>3</sup> which was

<sup>1</sup> It does a little administrative work in Alaska, and also in relation to agricultural education; but this work lies beyond the main purpose of the Bureau.

<sup>2</sup> It may, of course, be questioned whether such investigation is properly to be included within the functions of government. On certain sides of it the work might be equally well done by the pedagogic department of a research university; indeed, Prof. G. Stanley Hall, at Clark University, devotes considerable attention to comparative education. But a government office has advantages which no other organization can secure.

<sup>3</sup> The Hon. G. W. Ross, minister of education in Ontario, permits me to say that his department has been frequently indebted to the work of the Washington Bureau of Education, and he has no question that an efficient department of the kind established in London, *on an imperial basis*, for the benefit of education throughout the British Empire, would be regarded as a boon, and would receive support from the colonies.



presented to the Columbian Exhibition, shows how our colonies have recognized the need for the study of comparative education:

"The system of education in Ontario may be said to combine the best features of the systems of several countries. To the Old World it is indebted for a large measure of its stability, uniformity, and centralization; to the older settled parts of the New World for its popular nature, its flexibility, and its democratic principles, which have given, wherever desirable, local control and individual responsibility. From the State of New York we have borrowed the machinery of our schools; from Massachusetts, the principle of local taxation; from Ireland, our first series of text-books; from Scotland, the cooperation of parents with the teacher in upholding his authority; from Germany, the system of normal schools and the kindergarten, and from the United States generally the non-denominational character of elementary, secondary, and university education."

This duty of collecting statistics and reporting upon educational progress is not confined in America to the Bureau of Education; it is regarded as an important function of every State board and of all important city boards. Thus the superintendent of schools in Boston reports to his school committee:<sup>1</sup>

"In bringing this report to a close, it may be well to advert in a few words to its main purpose, which is not so much to express a critical estimate of the matters touched upon as to communicate a mass of information concerning the history and present condition of our school work. This information is offered as raw material for the manufacture of views and opinions, or as a useful contribution to current educational discussion. Educational discussion is going on all the time, both in school circles and in the community outside; but there is no greater need than that discussion should proceed upon full and accurate information. Inasmuch as such discussion turns largely upon those features of the school system which are susceptible of improvement, the information thus drawn out is apt to wear the aspect of unfavorable criticism; but it is unfavorable criticism in appearance only, the great underlying fact being that the system itself is strong and active and fruitful of good results. It is a sign of vitality and health in the system that it should be constantly mending its imperfections, mending them even under public observation."

I venture to urge that the education, and especially the secondary education, of England would be materially assisted by the establishment of some similar institution. Obviously some central authority must collect statistics, if any progress in organization is to be made at all, and if the best use is to be made of these statistics, they should be taken in hand by educational experts, and it would surely be an advantage if the scope of such an office were imperial and not simply national.

The following note from New Brunswick shows that our colonies would appreciate a service of this kind:

"In the course of the proceedings at the annual meeting of the New Brunswick Teachers' Institute, the chief superintendent declared that it would conduce to the advantage of the colony if there were established at Ottawa an educational bureau under the direction of a man of the ability and enthusiasm possessed by the United States Commissioner at Washington. There was an ample field and abundance of work for such a man and such an office without encroaching in the slightest degree upon the educational autonomy of any individual province. The generous maintenance of such a department by the Federal Government would tend to solve many knotty problems, and could scarcely fail to promote the educational work of every part of the Dominion. The proposal is to be commended, if only as likely to further that inter-provincial reciprocity in the acceptance of teachers' certificates which the members of the institute desire."<sup>2</sup>

It may, perhaps, be doubted whether some of the material published by the

<sup>1</sup> Annual Report, 1892, pp. 63, 64.

<sup>2</sup> Report of Annual Meeting, Teachers' Institute, New Brunswick, July, 1893.

Bureau, or by State boards of education, is worth the time and money spent upon it. No doubt there is some waste, more perhaps in the publications of State and municipal boards than in those of the Bureau; but I found that there were no two opinions among those I consulted in the United States as to the value of the work done at Washington, and of its direct benefit to all teachers, both in public schools and in private schools.

14. *State boards of education.*—Coming now to the functions of the State boards, it is to be observed how jealously each State preserves its own autonomy; and, since most of the States cover an immense area, and are continually increasing in population, there is no reason why its independence should be sacrificed, although, no doubt, the more backward States suffer from the lack of a vigorous educational system, and the independence of each State from its neighbor secures one great advantage which we in England have begun to reap since the technical instruction act for the first time gave power of independent initiative to county authorities. Each State learns by the experience, by the success or failure of its neighbor. An experiment tried in one State is certain to be copied in others if it succeeds. The same benefit has been found in Germany, especially in the little States, where experiments can be more easily made than in a great kingdom like Prussia; particularly cities like Frankfort, or dukedoms like Sachs-Weimar, make experiments in educational reform, and the process is watched with interest all over the country.

On the contrary, in a bureaucratic system such as prevails in Ontario, or in France, the individual teachers have little encouragement or opportunity to work out new experiments for themselves, and progress can only be made when the central authority is convinced of the utility of a reform which has been wrought out beyond its borders.

It has, I believe, been suggested that England, for purposes of education, should be divided into some half-dozen provinces,<sup>1</sup> each including within its limits one or two of our universities or university colleges, and each of them competent to serve by itself as the largest area for the public educational authority. The experience of Germany and of America seem to show that a province or a State which is large enough to support one or two universities on the apex of the educational system is large enough for autonomy.

15. It is generally admitted by thoughtful teachers in America that the State board of education is the weakest part of the educational system. The jealousy with which the township and the city protects its independence has hitherto prevented those functions which need to be administered centrally from developing proper activity; and, indeed, no clear conception seems yet to have been formed as to the precise duties which need to be administered from the center of the State, nor are serious proposals yet made to constitute an authority adequate to their performance.

The State board of education is composed of politicians—sometimes nominated by the governor, sometimes elected by the legislature—and they have no claim to speak with authority on matters of education. They employ an educational expert—the State superintendent<sup>2</sup>—but he is often appointed for political reasons, and is very seldom regarded as a power in the educational world.<sup>3</sup>

The functions which, apparently, need to be administered from the central authority are, first of all, those which local boards are not competent to undertake, such as the training of teachers, the provision of higher education, and the inspection of

<sup>1</sup> Compare a similar suggestion in Fraser's report, p. 320: "A central board, exercising more or less of actual visitatorial power over the middle and upper schools within a given area—say a 'county,' or one of those districts into which England is already divided by the registrar-general for statistical purposes."

<sup>2</sup> On the office of superintendent, see p. 645.

<sup>3</sup> I am of course speaking generally. There are some notable exceptions; and, as I shall point out later, there are two or three States which have a well-organized plan for controlling secondary education by a central authority.

schools;<sup>1</sup> secondly, those in which the cooperation of all local authorities is essential; for instance, the arrangements for leaving certificates from the secondary school to the university.

The functions of the State board in most of the States might be greatly extended if the board was so constituted as to carry weight with the local educational authorities; that is to say, if it was composed largely of men of experience in school work, some of them elected by the teachers of various grades, others nominated by local school boards on account of their qualifications. In one or two cases the State school board has recently secured the services of eminent schoolmen; and I have observed, particularly in the State of New Jersey, the advantage which has been secured to the State as a result, for the work that has to be done by the school board is mainly professional in its nature, and needs to be administered, not by laymen, but by men who have had experience in teaching.

Many of the States possess a large State school fund, which is distributed among the schools, and it is given away without any adequate guaranty that it is going to be well spent. The inspection of the schools is left in the hands of local superintendents, who are agents of the local school boards. The money is usually allotted on the basis of school attendance, the only additional requirement being that the schools receiving the aid shall be open for so many school days per annum. Sometimes the grant is made conditional upon an equal amount being raised by local taxation, but even this provision does not prevail everywhere, and there are still school districts which spend no more upon their schools than they receive from the State. In one or two States special grants in aid are made to rural districts which are thinly populated and can not fairly be expected to support their own schools.<sup>2</sup>

There are two States which present a striking contrast to the rest in this matter of State control. In New York State there has existed during the whole of the century a unique institution called the University of the State of New York, which is not, in the ordinary sense of the word, a university at all, but is a body charged with the control of secondary and higher education. The officers of this university, called regents, are elected by the legislature; but, owing to the important sphere intrusted to them, they are usually men of academic position. Under this authority a system has been organized which exercises a most powerful influence upon every high school in the State. It possesses a school fund, which it distributes by a strict method of payment by results, the results being determined by a system of uniform written examinations on papers issued from the central office of the university in Albany.

A somewhat similar system prevails in Minnesota, and in Ontario, Canada, where an examination for leaving certificates has been instituted for all high schools. On the result of this examination students are admitted to enter for university or professional education.

In these cases we observe the manifest advantage gained by compelling the universities and the schools to unite in the provision of leaving certificates, and, although I believe that the uniform written examination contains elements of mischief to education, it is obvious that the regulation of leaving certificates is one of the most important duties of the central educational council.

If, in Ontario and in New York State, the central authority consisted of professional men of similar rank to those constituting the chartered medical societies in England, it is likely that the leaving certificate would be arranged more in accordance with sound educational principles; but the advantage of securing by law an authority to regulate this matter for the whole State can scarcely be exaggerated.

A similar observation applies to the work of school inspection of schools. Ontario, New York State, and Minnesota are once more distinguished from

<sup>1</sup> Circular of Information, issued by the Bureau, 1880. Also, Plan of Educational Organization, by Professor Smart, of Indiana, published by the Bureau at the same time.

<sup>2</sup> Report of Board of Education in Massachusetts, 1892-93, p. 105.



their neighbors by possessing a high-school inspectorate, independent of local control.<sup>1</sup>

The lack of central control is also recognized in relation to the registration and training of teachers. It is true that the State boards of education everywhere authorize their superintendent to grant State certificates, but teachers are not compelled to obtain these certificates in order to teach in any school. The county or the city certificate is sufficient, and the result is that in many States the qualification of the teacher is appallingly low. This charge must be directed, however, against primary rather than against secondary education.

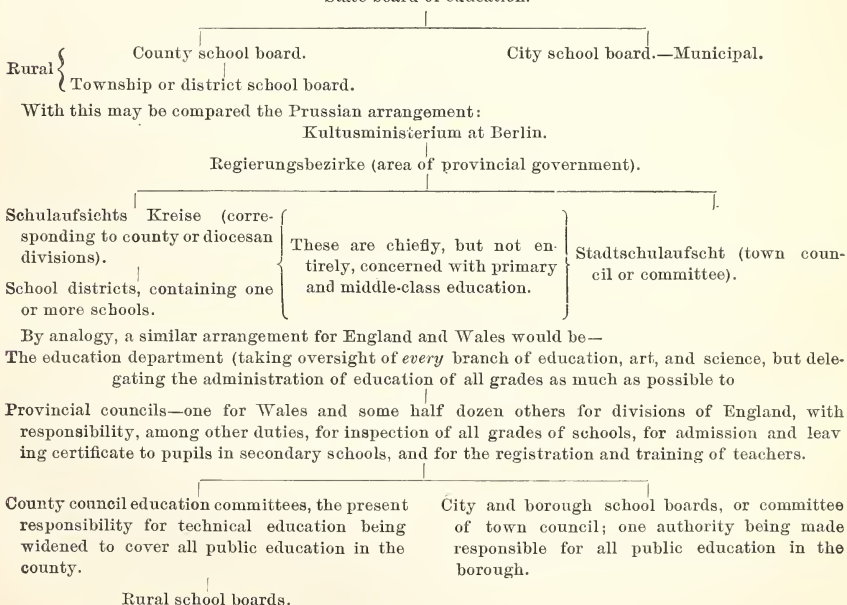
Speaking generally, then, the functions of the State board partly resemble those of the National Bureau of Education, partly are directed to aid, or to control in imperfect fashion, the work which is really done by each locality for itself.

Nevertheless, most of the States have permitted the boards to undertake certain departments of higher education which special circumstances seem to have made advisable. Thus, most State boards of education have charge of a few normal schools; nearly all have established agricultural colleges, and in the Northwest we find State universities. In recent years also the boards have begun to control professional examinations by establishing diplomas for physicians and lawyers under the direction of State boards, and in time we may expect to see the State control extended so as to cover the whole ground of professional studies and of school inspection. So long as this control and this cooperation can be exercised without endangering the freedom of the teacher, it can not but be helpful to progress.

16. For education, as for all the duties of local government, the State is divided into counties, and the county into townships.<sup>2</sup> In Massachusetts, and elsewhere, the townships had been formally divided into districts, each district being autonomous and having trustees to administer its own little school; but experience has condemned the selection for the unit of an area so small as to include one or two

<sup>1</sup> See Appendix I, where I have inserted copies of the forms sent out to principals of high schools and also those used by the inspectors.

<sup>2</sup> State board of education.





schools only. The mischief gradually caused was pointed out in Fraser's report, and is being thereby remedied by the legislatures of the States concerned.

It seems to be generally agreed that the best area in rural districts for a school authority is one which contains enough primary schools to feed at least one small high school with pupils—that is to say, every unit of school government ought to contain at least one high school. Very often the high school in a sparsely populated district will only be attended by 40 or 50 pupils, but the existence of this school is sufficient to give a focus to the education of the district, and to provide in the principal of the school a supervisor of experience, qualified to direct the educational work of the whole area.

The board which governs such a school district or township is elected by the people, and possesses by far the largest share of authority, since the authority of the county board and of the State board above it is so weak. It erects the school buildings, appoints and pays the teachers, and in some cases is permitted to issue a temporary certificate to a teacher who has not obtained any certificate whatever from the State or the county. It receives, as we have seen, a grant of money from the State, and must raise by local taxation whatever is needed to supplement this. It appoints its own superintendent for its schools, and, under his advice, it prescribes a curriculum and text-books. It also fixes the length of the school day and of the vacations and holidays; and it usually employs a truant officer, who is charged with the duty of collecting a census of all children of school age (5 to 15). Sometimes the census is taken by a county officer; in Toronto, by the assessors of taxes. In districts where a proper census is taken, it becomes a most valuable adjunct to the statistical material required in order to estimate the needs of public education. It not only enables the truant officers to find out children whose education is neglected, but it exhibits the share in education performed by private institutions. The annual school census seems to be a recognized aid to a thorough educational system.

Between the township school board or committee and the State board comes the county board, which, as a rule, exercises an influence slighter even than that of the State board. Its functions are chiefly exercised by its superintendent, who examines candidates desirous of teaching and issues certificates which enable them to teach in schools *within the county limits* for a limited period of years. This influence over the teachers is extended by visits to the schools, by lectures at teachers' gatherings, and especially by conducting the teachers' institutes (see p. 52), at which all the teachers within the county are assembled.

The county board reports to the State board upon the progress of education, and in some States has a voice in the distribution of the State school fund. Only one county normal school is known to me; it happens to have for its principal one of the most distinguished of American teachers. Usually the county board and its superintendent are elected by popular vote; in New Jersey an effort has been made to enlarge the powers of the county superintendent, and he is appointed by the State board, and his tenure of office is more permanent.

Speaking generally, then, the chief authority in the control of rural schools, including rural high schools, is the smallest local authority, the district or township board. The authority of the county board and of the State board is extremely limited.

17. From the scheme given on page 641, it will be seen that the city board of education is treated by the State as independent of the county, and it is, in fact, independent of the State board also; its subordination to the State board of education is merely nominal. It receives from the State school fund a certain appropriation per head for the education of its children; but in most of the States it pays back into the State exchequer a greater sum than it receives, because the property tax from which the school fund is obtained produces far more in the city than in the country. In some States and cities,<sup>1</sup> however, property does not require to be seriously

<sup>1</sup> Chicago is an example; the particular sections of land set apart for school support happen to lie in the best part of the city, and their sale has created a most valuable school fund.

taxed on behalf of the schools, because the public lands, which at an early date were set apart for the benefit of education, produce a large sum of money.<sup>1</sup>

Some of the cities in the United States, where the people have displayed an earnest desire for good education, present most interesting fields of study. The school boards have taken pains to secure superintendents of high reputation, and under such guidance the instruction in the schools is transformed in very few years. Cleveland and Indianapolis<sup>2</sup> at this moment, and St. Louis and Philadelphia some years ago, were examples of this mode of reform. A country with a bureaucratic system of control would never witness such reforms; nor, on the other hand, would cities indifferent to education be permitted to neglect their duty so shamefully as is often done in other cities in the United States.

18. The State board of education is sometimes nominated by the governor of a State, sometimes elected by the senate or the assembly; and the superintendent of instruction is sometimes appointed by the governor or by the school board, or is even elected by popular vote. The variety of methods is due to a conflict of aims. The majority of the people desire to see education kept "out of politics," and to secure members for these boards who are something more than professional politicians. The degradation of American politics makes it impossible for large powers in education to be intrusted to the nominees of the governor or the senate, although many times over I have been assured of the anxiety which is felt by the people themselves as well as by men of culture to see education conducted without reference to politics. I have inquired whether it would not be possible to constitute some kind of educational council, containing representatives of the teachers and of the universities, on lines similar to the organization in England of the medical or the legal profession, but apparently the time is not ripe for the professional organization of the teaching body.

In New York State, where, as I have already said, secondary education is formally controlled by the regents, some slight power by way of advice is placed in the hands of a committee of presidents of colleges and of principals of schools, but this power is nothing more than advisory, and, as a result, I have the impression that the methods employed by the regents are not so wisely directed to the benefit of education as they might be. The regents, being specially intrusted with the care of secondary and higher education, are always highly educated men, but they are the nominees of the governor, and they would be more likely to represent the educational wisdom in the State if some of them were chosen by their fellow-teachers.

The functions of the county board are so slight that the mode of its appointment need not be described. The school trustees of the rural township are elected by the people, and their efficiency as an executive body varies greatly in different parts of the country. In New England, where traditions of good schooling are more than three hundred years old, the work will be efficiently performed, but in other districts the main object of the trustees is to keep school open with the smallest local outlay; in such districts, of course high schools are out of the question.

The mode of appointment of the city board varies also; sometimes the mayor, sometimes the judges, sometimes the city council, sometimes the people themselves choose the members. Everywhere the same desire is expressed to elect a board which will keep education out of politics, and the strenuous efforts made to achieve this end show how difficult a task this is. While city councillors are paid a salary, members of school boards are never paid; and yet there can be no doubt that in a hundred ways the machinery of the school board is manipulated to serve the baser ends of party politics in places where the sense of public duty is low. It is, of course, much easier to point to the disease than to prescribe a remedy.

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<sup>1</sup>Chicago is an example; the particular sections of land set apart for school support happen to lie in the best part of the city, and their sale has created a most valuable school fund.

<sup>2</sup>The articles contributed by Dr. Rice to *The Forum* in 1892-93 afford a powerful, though it appears somewhat one-sided, criticism of city school systems in the United States.

I have inquired whether the plan of nominating a number of members of the council by cooptation from educated men in the community, not associated with a party, would be acceptable, but such a proposal, I am told, has never been made. In the few cities where a vigorous attempt has been made to check the evils of corruption, it has taken the form of placing greater power in the hands of the superintendent of instruction.

19. Turning back now to the functions mentioned in paragraph 13, which are undertaken by one or the other of these boards, we find as follows:

- (a) The State board or department of education generally establishes its own normal colleges, schools for special classes, such as the deaf and dumb, very often technical institutions, and sometimes universities, but beyond this range its authority in the erection and maintenance of school buildings is very slight. Local authorities for rural or municipal areas have power to build and maintain both elementary and secondary schools at will, and no superior State authority controls either the building plan or the ventilation or other matters, which in England and Germany are supervised from the central office.
- (b) The local authority has absolute control over the appointment and payment of teachers. The city boards issue their own certificates, while the rural boards are only allowed to employ teachers who are certificated by the county board; but this important task is very inefficiently performed by the county board, and the whole method of certifying and employing teachers is admitted to be unsatisfactory. The State board can issue certificates, but the immense majority of teachers never trouble to apply for them.
- (c) Finance:

20. (i) *Provision of funds for schools.*—The township board can raise a local rate and also receives financial aid from the State board, or the county board, or both, and its aid is usually calculated merely upon the numbers in general attendance. In one or two States a system of payment by results has been instituted, and in some cases superintendents or inspectors are appointed at the State cost, but it is only here and there that we find the power that the State ought to exercise by means of its financial aid employed with real effect to encourage good education and to repress incompetency. The system sanctioned by our technical instruction act of giving grants of money to schools outside of the public school system is very rarely found in America.

It has been noted above that secondary education is never regarded as self-supporting in America, and in theory every State regards itself as responsible for the provision of adequate secondary instruction; but it is only here and there that we find this obligation properly fulfilled. In many places if the public authority were called upon to provide school places for all children who are receiving secondary instruction the task would be utterly beyond their powers, for private endowment has always been generous in aiding secondary schools where such schools have gained a footing; and where, as in the West, the whole field of higher education is being undertaken on the socialistic basis by the State, it is being found, as I am told, that the State is unable to cope with the task, and it becomes a problem how to induce private donors to aid in this object with their wealth when the State has once assumed the entire responsibility of educating its children. The question is already causing anxiety in the State universities of the Northwest, and in England we shall have the problem before us in another form. At present, for reasons special to our time, very little endowment in proportion to the wealth of the country is forthcoming, either for secondary or higher education, but we may perhaps look forward to a revival of interest in the subject such as we are witnessing now in America. Now, if such a revival takes place it would be natural to expect a stream of gifts to educational institutions; but if the legislature undertakes education from the socialistic standpoint and endeavors to provide for all its needs out of the



public exchequer it may be questioned whether the flow of wealth from individuals will not cease.<sup>1</sup> The danger of arresting the stream of endowment is a serious one, and it suggests that public aid to secondary education should, so far as possible, take the course adopted in recent years for the support of higher education in England from the exchequer; that is to say, by grants on a scale proportioned to the spirit of generosity displayed by the locality, leaving the control of the institutions mainly in the hands of the locality. The unfortunate result of attempting to supply the whole educational need of a country through an educational department, relying only on public taxes, is exhibited in the Province of Ontario, in Canada, where the ministry, although inspired by an enlightened zeal on behalf of education, is unable to find funds to provide for the necessities of its higher institutions,<sup>2</sup> for its wealthy men have not formed the habit of contributing their aid, as is shown in other parts of Canada and in the United States.

(ii) *Expenditure; scholarships.*—The promotion of education by means of scholarships, which continually receives new developments in England, is not favored either in the States or in Canada. Scholarships are found here and there, but the general sentiment is against their employment as a means of promoting education on a large scale. It is held that money spent in this way would be better spent in reducing the fees or in employing better teachers and better inspection. Indeed, the whole principle of stimulating either the teacher or the pupil by competition is distrusted.

*Pensions.*—I have not found that schemes for teachers' pensions are receiving much attention in America, the reason being that so many teachers are engaged in the profession for only a few years. Teaching is still to many men, as well as to most women, a temporary means of livelihood, which will later on be dropped.

(d) *Inspection:*

21. One of the features of the United States system is the employment by every school board of an expert, usually called the superintendent. He is the chief executive officer of the State board, county board, city board, or township board. Sometimes, as in Massachusetts, he is also secretary of his board, and very often in small cities or townships containing only one high school he is also principal of the high school. His position and duties may be best illustrated by contrasting them with those of Her Majesty's inspectors of schools in England.

(1) His appointment is not of a permanent nature; it has to be renewed every two, three, or four years; and districts are still found where the change of political parties will involve the dismissal of the school superintendent and his staff. Instead of being, as in England, the servant of the central authority, he is the servant of the local authority.

(2) While the English inspector is only concerned with primary education, the superintendent's control, like that of his board, covers the whole range of schools. Hence the creation in the States of a class of university men who become experienced teachers, familiar with all the problems that present themselves from the youngest school age up to the university period.

(3) As the professional adviser of the board, the superintendent has a very large influence in the appointment of teachers. It is true that the principals of the schools are always consulted in these appointments, and the successful principal of a high school is permitted a large amount of independence,<sup>3</sup> but it is the board that makes

<sup>1</sup> See paragraph 10, and note.

<sup>2</sup> I am not quoting the expressed opinions of the department, but it is obvious from a comparison of the equipment of the university and other institutions in Toronto with those in the United States that the lack of means is seriously felt; the education department can not find funds to meet all requirements. Everyone in Canada notices the contrast between the generous support accorded, solely by private individuals, to McGill College, at Montreal, with the struggling needs of the university at Toronto, which has been taught to rely solely upon the State.

<sup>3</sup> City boards usually appoint a small committee to manage the details of each high school, and the principal will usually be invited to its meetings—indeed, it would be difficult to transact business in his absence. If teachers in the United States were professionally organized, the principals of high schools would probably make a claim to attend such committees as a right. In Ontario I heard a complaint that high school trustees were acting without consulting the principal; in England the same difficulty has been felt, and I understand that the Head Masters' Association has given attention to the subject.



the actual appointment, and if a difference arose between the superintendent and the school principal the board would probably support the superintendent.

I have talked with a number of high school principals as to the possibility of friction between themselves and their board or its superintendent, and I find that here, as in Germany, the position of a principal is very different to that of an English head master; our head masters would certainly protest most vigorously against the limitations of authority which are imposed upon the principals of German or American secondary schools. But I am bound to confess that I see no reason why as good an educational result may not be produced on a system in which the principal's authority is much more limited than it is among ourselves; the idea of undivided responsibility which attaches to the office of the head master is rarely found outside of England. The superintendent, however, does not "interfere" very much with the authority of his high school principals, because they stand very much on a level with him both in reputation and in salary.

The course of studies for the high schools is issued on the authority of the board of education, but the principals have the main voice in putting it together. It is well understood that the influence of the superintendent upon instruction shall be mainly directed to the primary and grammar schools, which are in the hands of less experienced teachers, chiefly young women, who need more direction and supervision.

(4) While the English inspector is limited by the instructions of the department, the superintendent, if he is a man of original educational ideas and is able to influence his board, has the opportunity of making very great progress in the educational system of his district; and those cities and counties in which during the last few years there has been pronounced improvement are indebted to the vigorous initiative of the superintendent who, in some cases, has been specially summoned to come to the rescue of a city where the lack of good education was painfully felt.<sup>1</sup>

On the other hand, a worthless superintendent will soon ruin the schools under his control, for there is no efficient check from a central authority.

(5) In the larger cities the efficiency of the superintendent is hindered by the mass of statistical and office work which the immense number of schools and teachers under his charge brings with it. He is supposed to visit each school and to be able to advise teachers in every part of the city; but the task is too great, and I have met one superintendent, who is ambitious to improve school methods, who deliberately left a city of 50,000 inhabitants to take the superintendency of one containing only 10,000 inhabitants, because he felt that he could only exercise effective personal influence in the smaller area.

Some of the larger cities, such as Boston, appoint a number of assistant superintendents or supervisors, who take charge of separate districts, and thus the evil is remedied.

If the claim of local authorities to a large power of initiative in education be once granted, it appears that some expert officer like the superintendent is necessary, and the employment by our county councils of an expert secretary to technical instruction committees seems an evidence in favor of this view. Without the superintendency American education could not be carried on at all, and the defects of the system need to be remedied, not by abolishing the office, but by introducing more inspection and more superintendence from the central authority; this, one hopes, may be done without imposing, as in Ontario and New York State, a uniform system of simultaneous paper examinations.

The inspectorate of New York State and of Ontario demands a little further notice. In New York State the regents have recently appointed 3 or 4 inspectors, with the conviction that the certificate paper examinations do not, by themselves, afford a sufficient test of the progress of the high schools, and in Ontario 2 high school inspectors have been appointed who spend their time in visiting the high schools under the department.<sup>2</sup> In both instances I found that the visits of these inspectors

<sup>1</sup> See paragraph 17 above.

<sup>2</sup> See Appendix I.

were welcomed by the principals of the schools, and the only objection to the further development of the inspectorate is its cost.

In New York State one of the inspectors is specially qualified to advise on the provision of apparatus for science teaching, and his services are placed at the disposal of schools which invite his assistance.

It will be seen from the schedules which I have added as an appendix to this report, that the scope of the inquiry made by these inspectors is very wide, and enables the central authority to form an accurate opinion as to the condition of higher education in the State.

I venture to urge that the provision of a public system of secondary education in England must carry with it a system of inspectorate from the central authority, and there seems to be little reason in the nature of things for establishing a secondary school inspectorate apart from the inspectorate of primary schools. An objection to such inspection is often raised on the ground that no one man, however talented, is sufficiently familiar with all the branches of study in a secondary school to be able to examine into the work of the highest forms. A detailed or formal examination, however, is not necessary to inspection; our head masters are able to control the work done in every branch of instruction; why should not inspectors be able to do the same?

In addition to the central inspectorate, the experience of America seems to point to the necessity of local supervision on the part of an experienced superintendent or inspector serving under the local authority, who would give an impulse to that local activity which is likely to be suppressed if the whole direction of education is left to the central authority.

22. (e) *Terms of admission from the primary school to the secondary school, and from the secondary school to college.*—No educational questions have been more keenly debated in the United States during recent years than those concerned with the passing of pupils from one stage of education to the next above it, and with reason, for upon a wise solution of these questions the efficiency of secondary instruction largely depends.<sup>1</sup>

*Admission to the secondary school.*—There are two opposite methods which are employed by superintendents in promotion:

Firstly, by simultaneous printed papers making up a primary school leaving examination, imposed on all the pupils of a city or a district.

Secondly, by the certificate of the principal of the primary school, declaring that the pupil has properly completed the primary course of study.

The first method is similar to the university local machinery employed so extensively in England. The second bears more points of similarity to the leaving certificates which are issued by every type of public school in Germany. I hesitate to offer argument upon the controversy raised by these two contrasting methods, partly because my own experience as an English teacher has led me to conceive what is, perhaps, a prejudice against the simultaneous written examination employed by our universities and secondary schools in England, and also because I have had no opportunity in America of testing the work done under one system or the other. There has, indeed, been too much vague attack and destructive criticism upon the written-examination system, without any attempt to construct an efficient substitute. This was the error made by Mr. Auberon Herbert and those who joined him in his famous onslaught in 1888.<sup>2</sup> The practical problem is, how shall a trustworthy plan be devised to enable admission and leaving certificates to be issued on a large scale, and at a moderate cost, which will be acceptable to universities and the like, without

<sup>1</sup> Compare Fitch, Memorandum, on the Certificat d'Etudes in France. I agree with him that this is a matter of the first importance, to be regulated by State control; but I think that we must look to Germany rather than to France for a wise method of conducting the examinations, if we are to avoid grave injury to the teacher's work.

<sup>2</sup> Nineteenth Century, November, 1888.

resorting to simultaneous papers, or incurring the grave injury to instruction which these involve? I believe that such a plan can be devised, and that Germany and the United States are showing us how to arrive at it.

My opportunities of comparing English school work with German school work have been sufficient to enable me to state that German instruction, conducted and completed apart from simultaneous printed examination papers, is as efficient as English instruction, which is made so dependent upon this form of stimulus and control. My observation in America has enabled me to note that strong efforts are being made, even by those who employ simultaneous printed papers,<sup>1</sup> to find a satisfactory substitute for them, and a recent investigation into the methods of promotion<sup>2</sup> seems to show that the simultaneous paper is employed to a much less extent than formerly. Indeed, the history in America of this mode of examination is similar to its history in England.<sup>3</sup> It came into being as a cheap and convenient device, which could be readily employed to compel every teacher to raise his work up to a respectable standard. As a matter of history, the system was introduced to cure idleness and inefficiency; but it can not do more than this, it can not point the way to better teaching, for the best results of instruction fail to be tested by the printed question paper, while it tends to encourage aims and methods of teaching which are unworthy.

Apart, however, from the investigation of the right mode of examining, it is obvious that the question of admission to the secondary school is one that needs careful attention from the authorities that organize education, and it is one in which primary school teachers, as well as secondary teachers, ought to have some voice; and herein the United States claims an advantage, because the primary and the secondary schools are under the same local authority.

In Ontario the whole system of certificates is administered by the Education Department, and the minister seeks advice when he needs it from all classes of teachers as to the character of the examination which he imposes. In New York State the regents impose their own entrance examinations for admission to high schools, and here, also, their power is unchecked; they are not compelled to follow the advice either of primary or secondary teachers. The advantages in these two States of a uniform system of certificates are undoubted, but it would surely be to the advantage of the schools if these certificates were issued under the authority of a professional council on which both primary and secondary teachers were represented. In England the only attempts, so far as I know, that have been made to create a uniform standard of admission to secondary schools are those concerned with competitive scholarships,<sup>4</sup> and here the experience of America is in direct opposition to English practice; no scholarships to high schools from grammar schools exist, because the high schools offer free tuition, and the endowed and private schools have never commenced such a practice. Sometimes a competitive entrance examination is imposed for admission to high schools, as in Philadelphia, and perhaps in other places where sufficient accommodation has not been provided by the board, but I found even in Philadelphia that this competition was not regarded with favor; indeed, I have not met with a single teacher in America who attached educational value to the principle of stimulus by competition for scholarships, prizes, or certificates, and this is true of Ontario as well as of the States.

<sup>1</sup> Particularly in Ontario, where I found considerable effort being made to minimize the evils of the system; everyone regarded it as an imperfect plan, but they adhere to it until something better can be found. (See Memorandum for Principals of Schools, Circular 21, Ed. Dept., Toronto, January, 1894.)

<sup>2</sup> Promotions and Examinations in Graded Schools, by Dr. E. E. White (Washington, Government Printing Office, 1891, Circular No. 7 from the Bureau). Dr. E. E. White has long been a recognized authority on education. (See Fraser's Report, p. 10.)

<sup>3</sup> It may be noted in passing that, while the examination system in England originated in the universities and has by them been extended over the schools, the American universities give little place to examination apart from teaching. They maintain the German principle—that the teacher may be inspected as much as you please, but his pupils must be examined by himself in the matter and the form in which he has taught them.

<sup>4</sup> I refer particularly to the examination now conducted in London, under the auspices, of the Head Masters' Association, for scholarships from elementary to secondary schools.



23. *Admission to college from the secondary school.*—There does not appear to be any absolute necessity for a precisely uniform standard of admission from the primary to the secondary school in all parts of a State. One might conceive of local conditions where it would be better for the standard of admission to a high school to be lower or higher than in other neighborhoods; with regard, however, to the leaving certificate admitting to college, uniformity of standard is surely essential, and one of the most crying evils in our want of system in England is due to the multiplicity of examinations imposed by the different universities and the professional schools of law and medicine.

I may note, in passing, that very few students enter American universities without having been pupils in some secondary school,<sup>1</sup> i. e., very few prepare for the university by the aid of private tutors. Anything like the "correspondence" method of obtaining a London degree is unknown in America. Dr. Harris happened to have made recent inquiries which covered this question, and I have given his figures in Appendix C.

I have met with four methods employed for college admission: First, each university or professional school holds its own entrance examination, independent of every other authority. This is the English plan. Secondly, the Government department holds a simultaneous written examination, which it requires universities and professional schools to accept as an entrance certificate. This is the plan employed in Ontario and New York State. Thirdly, the Government employs inspectors who are associated with the teachers of the school in a final examination, and they, in conjunction with the principal of the school, issue the leaving certificate which universities and technical schools are required to accept. This is the German plan. Fourthly, the university makes a general inspection of respectable high schools who wish to send pupils to it, and thereupon accepts the certificate signed by the principals of such schools, without any examination conducted from itself. This is the plan followed in the majority of American universities, and is known as the American certificate plan.<sup>2</sup>

The last two alone give the teacher what, as a professional man, he has a right to demand, i. e., freedom to work out his curriculum according to his own method and views upon teaching.

If the inspector in Germany, instead of being a civil servant, was, to some extent, under the authority of a professional council, it seems to me that the German plan would be almost perfect.

The American certificate plan presents the obvious danger that pupils may be sent up from some schools without having reached the proper standard of attainment.<sup>3</sup>

(f) Control of courses of study.

24. English secondary teachers, who dread the introduction of State control, are inspired by the fear that it may impose upon our schools fixed courses of instruction similar to that of the primary school code. It is true that such courses, more stringent than any Government code, are already prescribed by the local examination regulations and papers of questions issued from the universities; but this control is not recognized as similar in its effects to that of departmental control, and our English head masters still have left to them a large field of initiative which these examinations do not cover.

The fear, however, that a State authority might centralize, in mechanical fashion, our secondary education is by no means groundless, for there is good reason to believe that those States which have adopted a uniform system of secondary instruction have been in danger of depriving their teachers of freedom and of the progressive spirit; for it is the tendency of a central power to be seeking to stretch its

<sup>1</sup> Question 6 in "Heads of information:" "What proportion of students enter your universities without having previously passed through a secondary school?"

<sup>2</sup> See Catalogue of Michigan University, 1893-94, pp. 44-48.

<sup>3</sup> The universities do something to prevent this result, but the present system is admittedly unsatisfactory; some of the older universities (Harvard among others) have refused to adopt the certificate at all.



authority and to determine fixed modes and forms of instruction, instead of recognizing that the educational aim can be realized in a hundred different ways.

These departments of central control, in New York State, in Ontario, in France, and to some extent even, in Germany, have been led to impose a stringent machinery from the conviction that it was impossible by any other means to check the abuses liable to arise in the schools.

It may be admitted that our secondary schools need the hand of the State to give general direction to their work, but it would be a great disaster if it laid its hand too heavily upon them. It would surely be sufficient if the central authority were to determine in general terms the standard of attainment for pupils when leaving the various types of secondary school. It ought not to be necessary to prescribe any code or detailed curriculum; it may well be left for the local authority, guided by the expert advice of the head master or superintendent, to prescribe a detailed curriculum or syllabus. Only in Ontario has the department gone so far as to prescribe text-books specially prepared under the authority of the department for the use of the schools; and I have gathered that this unfortunate provision is due to the desire for economy rather than from any real belief that the text-books provided by the department are better than other publications.

(g), (h), (i) The distribution of these functions has already been referred to in discussing other matters.

I have now dealt with the various departments of administration as they are regulated by the various controlling authorities recognized in the United States. I have left one question for separate consideration, viz, the professional training of secondary teachers.

#### SECTION IV.—*The professional training of teachers.*

25. In the United States the law forbids any school board to engage a teacher who has not obtained a county or a State certificate; but this certificate does not imply that the teacher has had a professional training, and university graduates intending to teach in high schools obtain the necessary certificates without further question.<sup>1</sup>

It does not, however, follow that because professional training is a voluntary study it is therefore neglected in the United States. On the contrary, the American secondary teacher nowadays is expected to be conversant, superficially at least, with problems of education, and a fair number of teachers have really devoted themselves to the study with interest and zeal.

There are three ways in which a teacher may obtain some instruction in pedagogy:

(1) Many high-school teachers, especially women teachers in charge of the lower forms, have received their general education in city or State normal schools, and along with this have spent some time upon the theory and practice of education. These normal schools have usually a practicing school attached to them, and in the best of them attention is being paid to the development of educational science beyond what is found in our training colleges in England. They, however, suffer from the same hindrance that besets our English primary training colleges—the fact that so many of their students, previously to entering upon the normal course, have received an inadequate general education. Hence, only a small part of the instruction can be devoted to the training in the strict sense of the term, i. e., to theoretical and practical pedagogy. All the normal lecturers whom I met made the same complaint—that it was impossible to give adequate treatment to pedagogy, because the students needed so much help in branches of literature and science which they ought to have completed in a high school.

<sup>1</sup> Outside the States we find in the Province of Ontario regulations which go beyond anything found elsewhere in America. Here there has been established during the last two years a Government department called the school of pedagogy, which must be attended for twelve months by every teacher, whether a graduate or not, who desires an appointment in an Ontario secondary school. (Departmental Regulations, Circular No. 9, 1894, Education Department, Toronto.)

There are just a few normal colleges of high reputation which give great attention to pedagogy. These institutions, like the *Lehrerseminar* in Germany, usually divide their work into two periods, completing the literary and scientific studies in the first years and devoting the attention of their students entirely to pedagogy in the last year or two. This enables them to get a better grasp of educational problems than is possible under the present Government scheme in Great Britain. In later years many of these teachers will have saved enough money to go to a university, where they will continue their academic studies and perhaps receive further professional training in a university department of pedagogy (see next paragraph). Quite a number of high-school teachers, or university men who commenced teaching in a humble way in elementary schools, have only reached the university after the university age. It is much more common in America than in Europe to find undergraduates over 25 years of age.

On the plan of these normal colleges it was proposed recently in Massachusetts<sup>1</sup> to establish a higher normal college especially adapted to the needs of graduates of universities intending to teach in high schools; but the scheme fell through, for it is recognized that it is better to associate all higher studies with the universities than to separate them into isolated institutions.

(2) The study of pedagogy in American universities has received a great impetus during the last ten years, and the majority of men who intend to teach in high schools or to become superintendents are attending pedagogic courses in one or other of the 22 universities which have a professor of pedagogy in the faculty. The latest figures give at least 4,000 students as taking courses in pedagogy. It should be noted that only a small proportion of these 4,000 students are likely to become assistant masters in secondary schools for any length of time. Many will be made inspectors and superintendents, many others lecturers in normal schools. The so-called higher or secondary training will be needed quite as much for Government inspectors, for principals of primary schools, and for lecturers in training colleges as for the rank and file of schoolmasters.

Thus the general principle that the study of education is desirable for a university man who intends to teach is now everywhere admitted. There are still, no doubt, professors in the older universities who have no faith in this novel study, but the university opinion has gone against them.

The chair of pedagogy at Harvard was established some four years ago, and at first, as I have been told, the faculty by no means heartily welcomed the new professor; but this feeling has passed away, and it is seen that the chair can be made of considerable value to the general aims of university work, particularly in matters in which the university comes into relation with the secondary schools.<sup>2</sup>

While, however, the science of education has won recognition as a university study, we find as yet no general agreement as to the best methods by which the study is to be pursued. In the early days, lectures were given on education by a professor in some other branch of study, usually philosophy or theology, but two influences have operated to give a wholly different character to the study in recent years. The excellent pedagogical work produced by the best normal schools, and in recent years the influence of German pedagogics, and particularly the study of the Froebelian and Herbartian systems.

The main difficulty in the pursuit of pedagogy is created by the need for model or practicing schools. In some universities this need is not so much felt, because so many of the students, as I have observed above, have been teachers in earlier years; and in one or two universities the professor's classes are composed of men actually engaged in the high schools of the neighborhood. Thus, in the University of Pennsylvania, at Philadelphia, I found the large classes attending Professor Brombaugh's lectures composed entirely of superintendents, of high-school principals and assistants from the city or the neighborhood.

<sup>1</sup> See Atkinson's *Professional Preparation*, etc. (Appendix F.)

<sup>2</sup> See, e. g., *The School Review*, May, 1894; *University Inspection of Secondary Schools*, and the *Schools Examination Board of Harvard University*, by Prof. P. H. Hanus.

Hence, lecture courses on the theory, the history, and the organization of education comprise the bulk of the work done under the name of pedagogy, and students attending these courses are allowed to count them as one of the subjects for a university degree. It is felt, however, that something more needs to be done, and although as yet no practicing schools have been established similar to the Übung's Schule in the University of Jena,<sup>1</sup> beginnings are made in that direction. At the Leland Stanford Junior University the professor has a model kindergarten under his charge; at Harvard the students are taken to visit schools at Cambridge and Boston, and in the State University of Illinois arrangements were made last year for the equipment of a proper university practicing school. Still more important is the work in research done in the Clark University, in the school of pedagogy, which is a department of the University of the City of New York, and in the Teachers' College attached to Columbia University. This last possesses a well-endowed practicing school, called the Horace Mann School, with kindergarten, primary, and high-school classes. It can not be said, however, that there is as yet any consensus of opinion as to the best mode by which students of education should receive their training in the universities.

In Germany the problem of higher training has been discussed and experimentally treated for the last seventy years, and for the present it has been settled in Prussia by the establishment of the Gymnasial Seminar.<sup>2</sup> In the United States there has been no attempt to accomplish higher training in connection with high schools or academies. Some such method was tried a few years ago in Toronto, Ontario, but has been abandoned in favor of the school of pedagogy now in operation; this last, however, is still in the experimental stage. I can not but think that higher training must be left to evolve itself by experience in a variety of plans, and that the terms of teachers' registration should be regarded as a matter for the control of provincial councils of education.

(3) Perhaps the most important part of the high-school teacher's training is that acquired after he has commenced active work, by means of teachers' meetings and teachers' institutes. The teachers' institute has been for long a recognized and peculiar feature of the American school system. In form the gathering is a voluntary assembly of the teachers of a district; but since the State provides funds to pay the expenses of the gathering, and since the county superintendent makes the arrangements and presides over the gathering, it must be regarded as a part of the public plan of education. I have not been able to attend any of these meetings, but I have heard and read a good deal about them. I should suppose that one half of the work may be described as professional and pedagogic, and the other half as popular and literary in character. These gatherings are attended by teachers of all grades, and, while some of the discussions are on topics common to all, for other subjects the institute breaks up into sections, one section for high-school matters, another for primary school matters. The institutes last usually for one or two days; sometimes a whole week will be taken for the purpose out of a vacation.

Of a similar character to these teachers' institutes are the gatherings of superintendents and lay members of school committees, which are held in Massachusetts, and probably in other States also. There must, indeed, be some enthusiasm for the work of education, when lay members of school boards can be found willing to join with teachers and inspectors in the formal discussion of the duties of their office.<sup>3</sup>

<sup>1</sup>I have referred in detail to the Gymnasial Seminar and to Professor Rein's work at Jena in the account I have written for the commission on the training of teachers in Germany.

<sup>2</sup>See note 3 on previous page.

<sup>3</sup>Report of Board of Education, Massachusetts, pp. 82-86. In Ontario there is also an annual gathering of trustees in connection with the Ontario Educational Association—a trustees' department constitutes one of the sections of this association. More than 100 trustees representing school boards throughout the Province meet at the Easter convention.—(See Report of Minister of Education for 1892, p. 111.)



Apart from the teachers' institutes which are organized by public authority, are the numerous summer schools, which have no connection with the State or the county. Originally the summer schools were gatherings, like the Chautauqua Assembly, for general study and literature and science; but as the interest in pedagogy has increased, it has found a place in the time-table of nearly all the important summer schools. It is in these schools that the high-school graduates who have had no previous training gain most of their acquaintance with pedagogy, an acquaintance, no doubt, superficial, but in this, as in other branches of study, the student is shown the first steps in a course which he may afterwards follow out in private reading and inquiry. If I may venture, after so short a visit, to report a general impression, I should say that pedagogy is likely to suffer from the same evil that besets all higher studies in America, the lack of a thorough, steady devotion by students for a long period of time. The nervous unrest which seems to characterize American life as a whole tells with fatal effect upon studies which, in their nature, require prolonged application and investigation in order to produce effective results.

#### SECTION V.—*Instruction in religion and in citizenship.*

26. Since an inquiry into the nature of the secondary-school curriculum is excluded from this report, I have paid no attention to such matters beyond what has been required in order to discuss the different types of high schools. It is necessary, however, to refer briefly to two branches in the curriculum, to instruction in religion and in citizenship, because of their relation to the forces that control the course of public education.

The theory of education recognizes three sources of authority over the child, which have claimed and do still claim to control its education: the family, the church, and the state; and in the curriculum the influence of the church is recognized in the demand for religious instruction, that of the state for instruction in citizenship. Now, if we look back to the beginnings of American education, we see how in the early days the child's education was associated with the authority and guidance of the church, but as in course of time the church changed in character from a single authority, supported by the state and compelling obedience, to a variety of voluntary associations, the school became separated from the church, and the state exercised its influence without the ecclesiastical association. We find this change represented in the curriculum by the substitution of religious instruction by instruction in citizenship. In Germany, where the state and the church are still associated in their authority over the school, both religious instruction and citizenship take a prominent place.

The question that first arises in contemplating this situation will be: "Are the American schools to be described as godless or irreligious because definite religious instruction has been for so long abandoned?" I venture to think that such an epithet would be unjustified. In the old days the schools were not unpatriotic because they lacked instruction in citizenship, and to-day the American school is not, as a rule, irreligious, although lessons in religion are excluded.

The error arises from the mistaken supposition that the school either can or should provide for all the spiritual and mental needs of the child, and that the child's life will suffer unless every human interest is distinctly incorporated in a course of study. On this supposition lessons on teetotalism and alcohol have been introduced into the American curriculum, from the desire to train up a community in abhorrence of strong drink.<sup>1</sup> The end is laudable, and the prohibition party in politics is satisfied with this addition to the course of study; those, however, who attempt to promote temperance by such means disregard the nature of the child's mind and means by which the character of the young is trained. The aims of temperance can indeed be promoted by teachers who are themselves temperate, and who have studied the conditions under which the growing child learns to control appetite and passion.

<sup>1</sup> See, e. g., Report of Education Department in Ontario, pp. xvi, xvii.



Such teachers will train up the young to avoid excess in drink, although the topic may never be mentioned within the school walls. If, as is the case at present in parts of America, a vehement popular movement leads the people to insist upon positive instruction in such a subject, the result may be beneficial if the teachers themselves are in earnest about the matter; but such instruction is by no means essential to the aim which the people have in view, and in the hands of inefficient or insincere teachers not only waste of time but positive moral harm will result.

Now, without for a moment suggesting that the problem of religious instruction stands on a level with the problem of training in temperance, it would appear that the same pedagogic principles are involved. If we compare the American secondary school with the German secondary school, we find that in the latter formal biblical instruction is given the greatest prominence, while in the former it is absent, and yet no one will urge that the American people, either in youth or age, are less religious or devout than the Germans.

The Americans have chosen to consider that religious instruction can be undertaken apart from the school, but by so doing they have not made either teacher or school godless and irreligious.<sup>1</sup> It is true that the American child fails to learn as much as it should of the Bible story, and this is a matter to be regretted, not only on religious grounds, but for the sake of general culture. The Sunday school is never able to supply the place of steady school instruction in biblical knowledge. This American teachers themselves regret, but they would protest still more if the introduction of religious instruction into the schools was to lead to a revival of the bitter sectarian strifes which are found in England and elsewhere. The American teacher further points out that, while this regular instruction in biblical knowledge is wanting, his schools do much to help the child toward religion; for the teachers themselves are, as a rule, serious, religious persons. They conduct the opening exercises of the school with reverence, and the children learn in this daily assembly the habits of reverence and prayer. If these habits are, as they should be, fostered also in the home and in the church by parents and by pastor, the child is as safe as he is likely to be in a school which is founded to serve the ends of a religious denomination.

There are, in fact, four different educational aims included under the general phrase "religious instruction," and any fruitful discussion of the subject should keep them apart. Such instruction may (1) train the child in habits of reverential worship; (2) impart positive knowledge in the facts of the Bible story; (3) impart dogmatic instruction in the creed of church to which the child belongs; (4) direct the child's intelligence to an appreciation of the fundamental ideas of Christian morality as exemplified in the character of the great heroes of Bible story and of the national religious history.

All this can be done by the school so as to satisfy the demands of the most exacting churchman, and yet the root of the matter may not be attained, and no school<sup>2</sup> can pretend to reach the personal hidden life of the child—if, indeed, it has a right to venture there.

Now the American school excludes (2) and (3), but it need not exclude (1). The "opening exercises" may be of such a character as to train the corporate society of the school, assembled morning by morning, in the habit of reverence and prayer. If the family and the church do their share, this will count for much in the child's life.

In excluding positive Bible knowledge (2), the American school undoubtedly suffers, and its teachers admit this. Regarded merely as a part of general culture, the children lose by being left in ignorance of the contents of the Bible. In exclud-

<sup>1</sup>For an excellent exposition of the American standpoint, see Bureau of Education Report, 1888-89, Decision of judges in State of Wisconsin.

<sup>2</sup>The case of the boarding school is somewhat different. The teacher in a boarding school undertakes entire responsibility in loco parentis for the child's life. But no national system of education can undertake so great a responsibility,

ing dogmatic instruction (3), the American school is doing precisely what is done in the great majority of secondary schools in England.

Fortunately, no school law can either compel or hinder a faithful teacher from imbuing his whole school life and influence with Christian ethics that shall make for righteousness, if he himself is indeed a teacher realizing, to use Arnold's phrase, that "moral thoughtfulness" is the one final aim of the school. So far as the American school system, by excluding religion, has tended to diminish the moral responsibility of the teacher, it has been at fault. It is not for an outsider to judge hastily whether this has been the result or not, but there is no reason in the nature of things why this should be the case.

The above has been the general tone which I have found prevalent among both teachers and Christian ministers whom I have met in the United States, and on consulting Bishop Fraser's report I find that he gained a similar impression in the close observation that he made of American schools twenty years ago:

"I confess to the conviction growing more and more in my own mind, strengthened by what I have heard and seen in America, that what we need more of in England is *intelligent* education, a real quickening of the minds of the people, and I say this quite as much in the interests of religion as in the prospect of political changes. The results of this inquiry would make me much less hostile to a proposition for merely secular education if such were inevitable (which I am far from thinking it is) than I should have been ten years ago, when it would have simply shocked me. I should not shrink from still taking what I conceive to be my proper place as a clergyman in relation to the school, even under a system of secular education. I should neither despair of Christianity nor morality." (Fraser's Report, pp. 323-4.)

27. But since the publication of this report we have had in England<sup>1</sup> an experience which is more valuable than anything which the United States has to offer us, the successful endeavor to provide an "unsectarian religious instruction." This phrase has been used mainly in connection with our English primary schools, but it might also be fairly used to describe the weekly lesson in biblical knowledge, combined with the hymn and prayer at the opening of the school day, which are an essential part of school life in the majority of English secondary schools. Again and again, in talking on this subject with American teachers, they have expressed to me their admiration of this plan, and of their regret that the conditions of the American school system forbid them to adopt a similar plan in the United States.

"England seems to be wedded to religious instruction, requires it in her public elementary schools by the wishes of the great majority of her people, and perhaps an equal majority desires or is willing that this should be on a Christian basis.

"In Pennsylvania, in seven-eighths of the public schools, the Bible is read by the teacher without comment, and this usually constitutes the sum of the religious instruction given. In many States this is omitted, and the tendencies are more and more to bring our schools to the condition of the French, where every form of religious instruction is jealously excluded. The logic of our position, which implies the absolute separation of church and state, is rapidly driving us to this place. We must apply the same principles to Catholics, Jews, and unbelievers we do to Protestant sects if in any locality they demand it. We can not, consistently with our general theory, levy taxes to force teaching down children's throats against which their consciences protest, and while I believe it is a good thing to give even the weak ideas of religion usually gained by an unexplained reading of the New Testament, and would hold on to it as long as I could, I should give it up in the face of any serious and respectable protest if we are to maintain our present theory of public schools.

"And yet this is to my mind not a satisfactory result to come to. The American nation needs more rather than less religious instruction. The formal reading of the

<sup>1</sup> The Protestant school system of Canada has also successfully employed unsectarian religious instruction for many years.

Bible is often a lifeless form. The children do not know the subject read about. One word of explanation is often worth the whole chapter read. The home, the church, and the Sunday school combined do not give nearly sufficient to many children, none at all to many others, and if we are to rule it out of the schools absolutely we will also rule it largely out of the life of the nation. Also, while natural ethics may be taught and be effective, it is not so pointedly taught as when reinforced by the religious sanction. Hence I do not believe that the absolute secularization of the schools can be permanently satisfactory except in so far as the nation lowers its standards, and I would be glad to find some compromise, if you will call it so, by which the great majority of the people of any school district could have definite, positive teaching of such a general sort as they might approve, not sectarian, with such an arrangement of hours as not to force the attendance of the minority of conscientious opposers. Even unbelievers are often glad, or at least willing, to have definite religious and moral ideas taught their children, and it hardly seems to me worth while for the great mass of the people, especially those of Anglo-Saxon descent, inheriting the religious tendencies of the race, to witness their own growth in religious indifference for the sake of a theory, if an equally satisfactory result for the rest of the nation can be secured by another arrangement.

"If in a district of 100 families, 95 desire and would be greatly profited by the infusion of general religious truth, and can not get it except through the schools, why not excuse the 5 from attendance and give it." (President Sharpless in *The Relation*, etc.)

At present, in America, the fundamental laws of the States forbid the introduction of even "unsectarian religious instruction" into the public schools; they do not forbid it in England, and I am convinced that the immense majority of parents who send children to English secondary schools will be prepared to trust our secondary teachers with this important part of their duty, as they would in America if the way were open.

The whole question depends upon this issue, whether the people themselves accept and desire an unsectarian religious instruction, or whether they are so devoted to church forms as to be alienated from an education in which their own church is not represented. Now, this attitude has only been taken up in America by the people of one great church. The Roman Catholic tradition in education dates back to a time when the church and the schools were one, and the Roman Catholic Church will never recede from such a position.<sup>1</sup> Hence it is admitted that in the United States a certain amount of injustice is done to that section of the Roman Catholic population whose conscience keeps them from sending their children to the public schools;<sup>2</sup> but the total number of such parents is relatively very small, and any attempt to remedy the injustice would raise such strife that no serious attempt is likely to be made to heal the trouble.<sup>3</sup>

And this "injustice" is after all not so monstrous as it is sometimes represented.

<sup>1</sup> And it must be observed that the Roman Catholics only plead for "separate schools" for young children. They have no objection to sending their boys and girls to be taught with heretics in the high schools. They definitely declare that they do not desire to keep their children away from the high schools; so long as they can influence the young mind up to 12 years of age they are satisfied.

<sup>2</sup> It is only a certain section, even of the Roman Catholic population, who feel this injustice, and who desire to keep their children separate from the rest of the population. In Ontario, at the last census, out of 90,000 Roman Catholic children, only 30,000 were in separate schools, although the Dominion law gives them the right, which is desired by some in England, of claiming both local rates and State aid for separate schools. I have no figures—probably none are to be had—for the United States, but I am told that the more liberal minded among the Roman Catholics support the public school system.

<sup>3</sup> Besides the Roman Catholics there are, in one or two districts of the West, colonies of Lutheran Germans alien to the American Commonwealth alike in language and religion. Here also the injustice is felt, but the injustice would be still greater to the State, as a whole, if these colonies were allowed to establish themselves as an alien population, apart from the rest of their State in blood and in speech.



The principle on which the State acts in supplying education at public cost is precisely the same as that on which it supplies free libraries or parks—it is a provision for the general good of the community, which any individual may use or decline to use as he pleases; he is taxed in support of this provision not, in the first instance, because he is a parent, but because he is a citizen. He may, from various motives (religious or other), prefer to patronize private schools or private libraries—and he can not on that account complain of having to pay twice over for these matters; when once the community has determined that its welfare depends upon adopting public provision for education and culture, it is idle for malcontents to complain of injustice; their only resource is to attack the socialistic basis on which the community is acting. Now, in America, this attack can not possibly succeed, because the belief in public education as a part of civic duty is so firmly implanted; the Roman Catholics in certain parts of America have, therefore, hoped, like a certain section of “the Church” party in England, to secure a share of the public taxes. But their hope is vain; for the public taxes are raised for public purposes, not for the encouragement of private enterprises, even though these enterprises have high religious aims.

The injustice, however, is felt and can not be denied in the case of Roman Catholic parents who are poor and who can not establish private schools suited to their religious opinions; the remedy, such as it is, can only be found in the zeal of the Roman Catholic community, whose wealthier members enable the clergy and the sisterhoods to maintain parochial schools. The upholders of the public schools usually admit and regret this injustice to the poorer section of the Roman Catholics, but they see no means of remedy which would not be worse than the disease; for they can not permit public money raised solely for the purposes of education to be expended by clergy who are devoted, not to education, but to religious propagandism.

In Canada, by the original Statutes of the Confederation, the Catholics have obtained the right to establish State-aided separate schools, and, in consequence, the politics of Canada have never been free from bitter sectarian strife.

Since the example of Canada is being quoted just now in England, it should be understood that the separate-school system is permitted only in consequence of terms laid down to appease the Roman Catholics, when the Dominion was first created. The Episcopalians in Canada very seldom approve of the plan. (See Appendix D.)

It may, perhaps, be right in special cases, such as parts of Canada and the United States present, to permit a Roman Catholic population to establish an independent system of schools; but it would be most unfortunate and illogical to adduce the example of America as a guide to us in England, where the conditions are wholly different.

Hence, I conclude, in view of the possibility of secondary schools being established in England under public control, that the experience of America would urge us to give no support to institutions which are founded in the first instance to serve a denominational purpose. And it would also point to the wisdom of permitting the parents in each locality to decide whether they will prefer their children to receive unsectarian religious instruction, and, what is of more importance, the silent training in habits of reverence and worship obtained by the assembly of the school for simple worship at the beginning of the school day. If, however, such an arrangement leads to strife, it would be wiser to end the controversy by excluding religious instruction entirely from the school, leaving it, as in America, to the family and the church.

28. The responsibility of the school with regard to training in citizenship is now for the first time being discussed in England, and I refer to it here because it seems clear that the assumption by the State to complete authority over the school leads directly to the demand by the State that the teacher shall train his children in patriotism.

In the hands of a wise teacher, who sincerely cares for the welfare of his country,



such instruction may be invaluable, and I believe that in Germany it has proved a distinct aid in the development of true citizenship. But here again it is important to distinguish aims and methods. The school can attempt—

(1) To give positive knowledge in national history, which shall serve as a basis for interest in the national welfare in later years.

(2) To give formal lessons in civics, i. e., in the facts relating to local and imperial government.

(3) To assist children to realize their relation to their country by seizing hold of the opportunity presented by great national events and days, celebrating them appropriately and explaining their significance.

(4) By so organizing the corporate life of a school society (mainly outside of the class room) as to develop in a child the habits and ideas of esprit de corps, of public spirit and devotion to the common interests of the society; thus the children are prepared in the microcosm of the school to play a greater part hereafter in the civic community.

Now, of these four methods, the last has been employed most successfully in English "public schools" (I use the term in our English sense). Perhaps the most distinctive contribution to pedagogy which England can offer is the methods of discipline and training exhibited in good English boarding schools. The second is almost unknown in England or Germany, but forms a distinct part of the curriculum in French and in many American schools. I very much question its value for the purpose in view, for it is a question whether the body of facts relating to local government are suitable for children to understand; at any rate, they would need very careful handling in order to prove of real educational value. We have here the same danger of error that is seen in those who advocate formal instruction in temperance and hygiene, or in dogmatic Christianity; the intention is worthy, but the means are not likely to achieve the end in view; the lessons on these subjects will not be long remembered unless they are really suitable to the child's understanding and adapted to his present mental needs and interests.

The third method is employed in Germany with excellent success, as I have often witnessed, by teachers who are themselves patriotic, and understand how to touch the imagination and the hearts of children. I am told that in America such celebrations are also valued in the schools; but if a tree is known by its fruit, one can not take a high estimate of the civic instruction imparted by American teachers. The same rule must apply here as in every branch of instruction—the teaching depends upon the teacher—he who teaches patriotism out of a book, according to the order of a school board, without himself feeling the right motive and interest, will do harm to his children. \* \* \*

I believe that all four methods, if employed with judgment and by teachers of experience, will help children to realize their duty and their privileges toward their mother country. It is evidently the State's concern to labor for the production of such a result; and it will be achieved, not by the publication of text-books—though these may help the cause—but by training an army of teachers who will understand their responsibility in this and in all matters which concern the character and the conduct of English children while under instruction.

I have, etc.,

J. J. FINDLAY,  
*Assistant Commissioner.*

TORONTO, November 5, 1894.

## APPENDIX A.

## SET OF DOCUMENTS EMPLOYED BY THE REGENTS OF THE UNIVERSITY OF THE STATE OF NEW YORK IN INSPECTING AND AWARDING GRANTS TO SECONDARY SCHOOLS.

## I.

## ANNUAL REPORT FOR 189 -9 OF ———.

*To the Regents of the University of the State of New York.*

[Laws of 1892, ch. 378, section 25.]

§ 25. The regents or their committees or officers shall visit, examine into, and inspect the condition and operations of every institution and department in the university, and require of each an annual report verified by the oath of its presiding officer, and giving information concerning trustees, faculty, students, instruction, equipment, methods, and operations, with such other information and in such form as may be prescribed by the regents, who shall annually report to the legislature the condition of the university and of each of its institutions and departments, with any further information or recommendations which they shall deem it desirable to submit to the legislature; and such parts of their report as they shall deem necessary for use in advance of the annual volume may be printed by the State printer as bulletins. For refusal or continued neglect on the part of any institution in the university to make the report required by this section, or for violation of any law, the regents may suspend the charter or any of the rights and privileges of such institution.

## REGENTS' ORDINANCES AS TO ANNUAL REPORT.

Every institution of the university shall transmit its annual report to the regents before September 1 each year. On September 1 of each year the secretary shall report to the executive committee any institution of the university whose annual report for the academic year ending July 31 is not filed in the regents' office.

[Read these instructions carefully before filling this blank.]

1. Use perfectly legible figures, not words, for all dates, amounts, numbers, etc.  
2. When the report makes two items of something which your records combine, e.g., room rent and board, estimate as nearly as possible the division between the two; for if you merely bracket the items and give the total, it distorts both columns in the summary for the whole State.

3. When questions do not apply or can not be answered definitely, do not leave a blank, but make clear by the following marks that answers are intentionally, not accidentally, omitted:

— drawn through heading means "does not exist in this institution."

O in place of answer means "none this year." ? in place of answer means "fact unknown."

? preceding an answer means "probably" or "approximately"; e.g., ? 324 means "to the best of our knowledge and belief, about 324."

4. Change any term used so that the report shall read exactly according to facts; e.g., write "chairman" instead of "president," "first-year" class instead of "freshman," etc.

5. If there is insufficient space for any part of the report, complete it on the sheets of uniform size sent herewith and insert in proper place. This size must be used for binding.

6. For the comparative tables all reports should cover exactly the same academic year; but if it is not practicable to give the facts for July 31, institutions may give them for their own date, clearly indicating the change whenever July 31 is printed in this blank.

7. "Trustees," as used in this report, means the governing body, by whatever name known.

8. Reference to any item must be made by the number of the head under which that item is given.

#### UNIVERSITY OF THE STATE OF NEW YORK.

The trustees of ——— make the following report to the regents of the university for the year ending July 31, 189—:

Days actually in session during past year ———.

#### 1. TRUSTEES.

*Officers, August 1, 189—.*

President, ———.  
Treasurer, ———.  
Secretary, ———.

*Changes in trustees.*

*Vacancies occurring between August 1, 189—, and August 1, 189—.*

| Name. | Cause.<br>[Write "Term expired," "Died," "Resigned," or "Seat declared vacant," as case may be.] | Date. |
|-------|--|-------|
|       |  |       |

*Appointments made between August 1, 189—, and August 1, 189—.*

| Name, with academic degrees, and where obtained. | Residence. | Date. |
|--|------------|-------|
|  |            |       |

Number in full board of trustees ———. Number of present vacancies ———.

#### 2. FACULTY.

*Officers, August 1, 189—.*

Cancel any title not used, and add any not given that are used.

Principal, ———.  
Vice-principal, ———.  
Preceptress, ———.  
Secretary, ———.

There are — men and — women on the academic faculty. — men and — women are teaching as a permanent profession, and — men and — women are teaching temporarily.

Changes in faculty include each instructor, even if he has no vote in faculty meeting.

*Vacancies occurring between August 1, 189—, and August 1, 189—.*

| Name. | Cause.<br>[Write "Term expired," "Died," "Resigned," or "Seat declared vacant," as case may be.] | Date. |
|-------|--|-------|
|       |  |       |

*Appointments made between August 1, 189—, and August 1, 189—.*

| Name, with academic degrees and where obtained. (a) | Subjects taught. | Years spent in teaching. | Date of election to present position. |
|---|------------------|--------------------------|---------------------------------------|
|   |                  |                          |                                       |

*a* Give for those who do not hold any academic degree the institution where their education was completed.

## 3. STUDENTS.

*Number and classification of students taking academic studies during past year.*

|            | Total for year.   |  |  | By term.                                    |              |             |              |          | By residence.                             |        |        |          |
|------------|---|--|--|---|--------------|-------------|--------------|----------|---|--------|--------|----------|
|            | Pupils not holding preliminary or 30-count certificates, but taking higher studies other than physiology and drawing. | Academic holding regents'—                     |  | Students attending one week or more during— |              |             |              |          | Different individuals during entire year. |        |        |          |
|            |   | Preliminary of 30 count certificates. <i>a</i> | 50-count or higher diplomas or certificates. | First term.                                 | Second term. | Third term. | Fourth term. | Average. | Boarders. ( <i>b</i> )                    |        |        |          |
|            |   |  |  |   |              |             |              |          | Day scholars.                             | Local. | State. | Foreign. |
| Boys.....  |   |  |  |   |              |             |              |          |   |        |        |          |
| Girls..... |   |  |  |   |              |             |              |          |   |        |        |          |
| Total.     |   |  |  |   |              |             |              |          |   |        |        |          |

*a* Put in this column only those who hold a preliminary or 30-count certificate, but have not yet gained a 50-count regent's diploma or certificate.

*b* "Boarders" means those who leave their homes and board in or near the school. Count as "local" all who live near enough to go home over Sunday. All others from this State count as "State," and from all other States or countries count as "foreign."

Not to be filled by academic } This academy has also instructed in subacademic studies — boys  
departments of union schools. } and — girls, none of whom are included in the above statistics.

*College entrance.*

Entered college past year:

Boys *a* .....

Girls .....

Expecting to enter coming year:

Boys .....

Girls .....

## 9. RECEIPTS DURING PAST YEAR.

|  |    |  |
|--|----|--|
| Tuition fees .....   | \$ |  |
| Fees for teachers <i>b</i> .....   |    |  |
| Room rent .....  |    |  |
| Board .....  |    |  |
| Other receipts from students .....   |    |  |
| Income of investments .....  |    |  |
| Gifts and bequests .....   |    |  |
| Regents' grant for credentials and attendance .....                                    |    |  |
| Regents' grant for books and apparatus .....   |    |  |
| Raised by trustees for books and apparatus .....                                       |    |  |
| Department of public instruction grant for instruction of common school teachers ..... |    |  |
| All other sources .....  |    |  |
| Total .....  |    |  |

*a* Include not only members of last class, but also any former pupil who actually entered college during past year.

*b* See footnote (*a*) on p. 662.



10. EXPENDITURES DURING PAST YEAR.

|  |    |  |
|--|----|--|
| Additions, improvements, and repairs as follows: |    |  |
| 1. Grounds .....                                 | \$ |  |
| 2. Buildings .....                               |    |  |
| 3. Furniture .....                               |    |  |
| 4. Apparatus .....                               |    |  |
| 5. Library .....                                 |    |  |
| 6. Museum .....                                  |    |  |
| Salaries for instruction .....                   |    |  |
| Fees to teachers <i>a</i> .....                  |    |  |
| Salaries paid other officers and employees ..... |    |  |
| Prizes, scholarships, etc .....                  |    |  |
| Given or lent to ——— students .....              |    |  |
| Interest on debt .....                           |    |  |
| Insurance .....                                  |    |  |
| Fuel and lights .....                            |    |  |
| Printing, postage, and stationery .....          |    |  |
| All other purposes .....                         |    |  |
| Total .....                                      |    |  |

*a* Fees from students to teachers for regular instruction are to be counted as a receipt and expenditure, even if they do not pass through the school treasury. This table should show the total amount paid by students to the school or its faculty for instruction.

10a. CERTIFICATE OF AUDITING COMMITTEE.

We hereby certify that we were duly appointed by the trustees as auditing committee and that we have examined in detail the preceding statement of receipts and expenditures. We find proper vouchers for all the items and believe each payment to have been for a proper purpose and of a reasonable amount.

\_\_\_\_\_,  
\_\_\_\_\_,  
*Auditing Committee.*

The committee must fill the above blank and each member must sign both original report and duplicate.

11. ADDITIONAL INFORMATION.

Here insert statements regarding changes in organization, brief descriptions of new buildings, increased facilities for instruction, and any benefactions announced but not received, with names of givers and amount, object and conditions of each gift, together with any other information to be included in the summary of the progress of each school as printed in the regents' report to the legislature.

12. AFFIDAVIT OF PRESIDING OFFICER.

By the laws of 1892, ch. 373, sec. 25, the annual report of every institution must be "verified by the oath of its presiding officer," which term may mean either the president of the institution or the chairman of its trustees. It is very desirable that the report be read and approved by the trustees, but if this can not be done in time to send the report to the regents before September 1, it should be sent as soon as authenticated by the presiding officer, and read to the trustees afterwards.

STATE OF NEW YORK, county of \_\_\_\_\_ ss:

\_\_\_\_\_, in said county, being duly sworn, deposes and says that he is the presiding officer of \_\_\_\_\_; that the foregoing report has been prepared in accordance with the instructions of the regents of the University, and that the statements therein he verily believes to be in all respects true, and that an exact copy of this report has been filed with the permanent records of the institution.

\_\_\_\_\_,  
*President of \_\_\_\_\_.*

Subscribed and sworn before me \_\_\_\_\_, 189—.

\_\_\_\_\_,  
*Notary Public.*  
*Justice of the Peace.*

(Cancel one title.)

## II.

## UNIVERSITY OF THE STATE OF NEW YORK.

*Principal's schedule to accompany the trustees' report of ——— for the year ending July 31, 1893.*

AFFIDAVIT. *a*

STATE OF NEW YORK, *county of ——— ss:*

———, of ———, in said county, being duly sworn, deposes and says that he was principal of ——— during the academic year ending July 31, 1893, and that all entries made in the following schedule as to names, ages, times, and places of completing regent's preliminary examinations, periods of attendance, subjects taught with the total number of exercises in each, text-books used and parts studied, are true to the best of his knowledge and belief.

Subscribed and sworn before me ———, 1893.

———, *Principal.*

———  
*Notary Public.*  
*Justice of the Peace.*

(Cancel one title.)

## DIRECTIONS.

1. No scholar can be included in this schedule who has not, during the year ending July 31, 1893, attended the regular school exercises one day or more after having passed all the preliminary examinations, or after having gained a 30-count certificate.

2. Make a strictly alphabetic list of all boys, followed by a similar list of all girls, entitled to be included in this schedule. Number all the names as a single list. Additional sheets will be sent if needed.

3. To fill the "summary of instruction:"

(a) Give for the grammar of each language the facts for the edition most used in your school for the entire course, and not for first year only.

(b) Give for "total exercises" the product obtained by multiplying the number of exercises actually given per week on each subject by the number of weeks during which that subject was taught. Indicate by O every case where no instruction was given.

(c) Under head "text-books used" give author, or, in case of texts, editor, not publisher.

(d) Under "other subjects" put all, not in the printed list, in which instruction was given during past year.

(e) If more than one class has pursued the same subject, enter each additional class under "additional classes."

*Principal's schedule of the ——— for 1892-93.*

| No.     | Names of academic students.<br>[Give Christian name in full.] | Age at nearest birthday. | Month and year when preliminary examinations were completed, with name of school if completed elsewhere. | Total days' attendance as an academic student in this school during past year. |
|---------|---|--------------------------|--|--|
| 1       |   |                          |  |  |
| 2       |   |                          |  |  |
| 3, etc. |   |                          |  |  |

*a* In any extraordinary necessity, e. g., the death of the principal, this schedule may be prepared and the affidavit executed by a teacher or trustee. In such case, state the cause in special affidavit, and also the sources from which a knowledge of the facts herein is derived. If there have been two or more principals during the year, each should make affidavit relative to his own part of the schedule.

*Summary of instruction actually given in past school year.*

| Subjects.  | Total exercises. | Text-books used.  |                | Pages of text-books studied. |              |             |              |
|--|------------------|-------------------|----------------|------------------------------|--------------|-------------|--------------|
|  |                  | Author or editor. | Title of book. | First term.                  | Second term. | Third term. | Fourth term. |
| Group 1.   |                  |                   |                |                              |              |             |              |
| 1. Reading .....                                   |                  |                   |                |                              |              |             |              |
| 2. Writing .....                                   |                  |                   |                |                              |              |             |              |
| 3. Spelling .....                                  |                  |                   |                |                              |              |             |              |
| 4. English, elementary .....                       |                  |                   |                |                              |              |             |              |
| 4a. English, advanced .....                        |                  |                   |                |                              |              |             |              |
| 5. English, composition .....                      |                  |                   |                |                              |              |             |              |
| 6. Rhetoric .....                                  |                  |                   |                |                              |              |             |              |
| 7. English literature .....                        |                  |                   |                |                              |              |             |              |
| 8. American literature .....                       |                  |                   |                |                              |              |             |              |
| 9. Course in English reading .....                 |                  |                   |                |                              |              |             |              |
| G1. German, first year .....                       |                  |                   |                |                              |              |             |              |
| Gg. German grammar .....                           |                  |                   |                |                              |              |             |              |
| G2. German, second year .....                      |                  |                   |                |                              |              |             |              |
| G3. German, third year .....                       |                  |                   |                |                              |              |             |              |
| F1. French, first year .....                       |                  |                   |                |                              |              |             |              |
| Fg. French grammar .....                           |                  |                   |                |                              |              |             |              |
| F2. French, second year .....                      |                  |                   |                |                              |              |             |              |
| F3. French, third year .....                       |                  |                   |                |                              |              |             |              |
| L1. Latin, first year .....                        |                  |                   |                |                              |              |             |              |
| Lg. Latin grammar .....                            |                  |                   |                |                              |              |             |              |
| L2. Caesar's Commentaries .....                    |                  |                   |                |                              |              |             |              |
| L3. Sallust's Catiline .....                       |                  |                   |                |                              |              |             |              |
| L4. Cicero's Orations .....                        |                  |                   |                |                              |              |             |              |
| L5. Ovid's Metamorphoses .....                     |                  |                   |                |                              |              |             |              |
| L6. Virgil's Æneid .....                           |                  |                   |                |                              |              |             |              |
| L7. Virgil's Eclogues .....                        |                  |                   |                |                              |              |             |              |
| L8. Latin composition .....                        |                  |                   |                |                              |              |             |              |
| Gk1. Greek, first year .....                       |                  |                   |                |                              |              |             |              |
| Gkg. Greek grammar .....                           |                  |                   |                |                              |              |             |              |
| Gk2. Xenophon's Anabasis .....                     |                  |                   |                |                              |              |             |              |
| Gk3. Homer's Iliad .....                           |                  |                   |                |                              |              |             |              |
| Gk4. Greek composition .....                       |                  |                   |                |                              |              |             |              |
| Group 2.   |                  |                   |                |                              |              |             |              |
| 21. Arithmetic .....                               |                  |                   |                |                              |              |             |              |
| 21a. Arithmetic, advanced .....                    |                  |                   |                |                              |              |             |              |
| 22. Algebra .....                                  |                  |                   |                |                              |              |             |              |
| 22a. Algebra, advanced .....                       |                  |                   |                |                              |              |             |              |
| 23. Plane geometry .....                           |                  |                   |                |                              |              |             |              |
| 24. Solid geometry .....                           |                  |                   |                |                              |              |             |              |
| 25. Plane trigonometry .....                       |                  |                   |                |                              |              |             |              |
| Group 3.   |                  |                   |                |                              |              |             |              |
| 31. Astronomy .....                                |                  |                   |                |                              |              |             |              |
| 32. Physics .....                                  |                  |                   |                |                              |              |             |              |
| 32a. Physics, advanced .....                       |                  |                   |                |                              |              |             |              |
| 33. Chemistry .....                                |                  |                   |                |                              |              |             |              |
| 33a. Chemistry, advanced .....                     |                  |                   |                |                              |              |             |              |
| 34. Geology .....                                  |                  |                   |                |                              |              |             |              |
| 35. Physical geography .....                       |                  |                   |                |                              |              |             |              |
| 36. Botany .....                                   |                  |                   |                |                              |              |             |              |
| 37. Zoology .....                                  |                  |                   |                |                              |              |             |              |
| 38. Physiology and hygiene .....                   |                  |                   |                |                              |              |             |              |
| Group 4.   |                  |                   |                |                              |              |             |              |
| 41. Geography .....                                |                  |                   |                |                              |              |             |              |
| 42. General history .....                          |                  |                   |                |                              |              |             |              |
| 43. Greek history .....                            |                  |                   |                |                              |              |             |              |
| 44. Roman history .....                            |                  |                   |                |                              |              |             |              |
| 45. English history .....                          |                  |                   |                |                              |              |             |              |
| 46. United States history .....                    |                  |                   |                |                              |              |             |              |
| 46a. New York history .....                        |                  |                   |                |                              |              |             |              |
| 47. Civics .....                                   |                  |                   |                |                              |              |             |              |
| 48. Economics .....                                |                  |                   |                |                              |              |             |              |
| Group 5.   |                  |                   |                |                              |              |             |              |
| 51. Psychology .....                               |                  |                   |                |                              |              |             |              |
| 52. Ethics .....                                   |                  |                   |                |                              |              |             |              |
| 525. Stenography .....                             |                  |                   |                |                              |              |             |              |
| 53. Bookkeeping .....                              |                  |                   |                |                              |              |             |              |
| 54. Drawing .....                                  |                  |                   |                |                              |              |             |              |
| 54a. Drawing, advanced .....                       |                  |                   |                |                              |              |             |              |
| Other subjects a .....                             |                  |                   |                |                              |              |             |              |
| Additional classes in subjects printed above ..... |                  |                   |                |                              |              |             |              |

a Including any of the special courses in literature mentioned in Supplement 2 of the Academic Syllabus.

## III.

## UNIVERSITY OF THE STATE OF NEW YORK.

*Report on ——— by ——— ———, Inspector.*

## PURPOSES OF INSPECTION.

To ascertain whether the institution is provided with suitable grounds, buildings, equipment, and teaching force.

To ascertain if the work done is creditable in quality and scope.

To aid in correcting observed defects by friendly criticism and suggestion.

To enable each school to profit by the experience of others whose methods have been found most successful.

To secure from the teachers suggestions which may be of service to the university in its aim to keep in sympathetic touch with all its institutions.

Date and duration of visit ———.

Exercises attended ———.

## 1. Grounds:

- a. Location.
- b. Extent.
- c. Condition as to—  
Drainage.  
Shade.  
Shrubs and plants.
- d. Cared for by whom.
- e. Flag staff pole.

## 2. Buildings:

- a. Number and size—  
Wood.  
Stone.  
Brick.
- b. Special features—  
Dormitory.  
Auditorium or chapel.  
Gymnasium.  
Laboratory.
- c. Closets.
- d. Academic rooms (for floor plans and dimensions see page —).  
Study hall.  
Class rooms.  
Number of sittings.  
Cubic feet per pupil.  
Floor space per pupil.  
Light.  
System of heating.  
System of ventilation.  
Furniture.  
Decorations—  
Plants.  
Busts.  
Maps.  
Pictures.  
Statuary.  
Charts.

## 3. Library:

- a. Where kept.
- b. Condition.
- c. Number volumes.
- d. Periodicals now taken.
- e. Total value.
- f. Class of books—  
General.  
Philosophy.  
Religion.  
Sociology—  
Economics.  
Education.  
Government documents.

## 3. Library—Continued.

- f. Class of books—Cont'd.  
Philology.  
Science.  
Useful arts.  
Fine arts.  
Literature—  
Poetry.  
Fiction.  
Prose.  
History.  
Geography and travels.  
Biography.  
Text-books.
- g. Provisions for additions.
- h. System of classifying and cataloguing.
- i. When open.
- j. Number of books drawn.
- k. Character of books drawn.
- l. Courses of reading planned for pupils.
- m. Public library; to what extent patronized by pupils.
- n. Effort made to encourage pupils to form private libraries.
- o. Bulletins from regents' office—  
Where kept.  
Missing numbers.

## 4. Apparatus:

- a. Where kept.
- b. Condition.
- c. Value.
- d. Character.
- e. Maps, charts, globes.
- f. Facilities for individual work by pupils.
- g. Services of inspector of apparatus not needed.

## 5. Teachers:

- a. Principal—  
Where educated.  
Taught how long.  
Salary.
- b. Teachers doing academic work—  
Men.  
Women.
- c. Required qualifications.

## 5. Teachers—Continued.

- d. Faculty meetings—  
Held how often.  
Character.

## 6. Pupils:

- a. Population of district.
- b. Children of school age.  
1. Total attendance in all grades.  
2. In academic department.
- 3. Holding preliminary certificate.
- c. Requirements for entrance to academic department.
- d. Requirement for graduating.  
1. Academic or classical diploma.  
2. Count certificate.
- 3. Standard adopted by board of education without reference to regents' credentials.

e. Number that enter college.

f. Number that enter professional life.

g. Success of graduates in after schools.

## 7. Courses of study:

- a. Time given to English.
- b. Status of Greek.
- c. Status of Latin.
- d.
- e. Number recitations per week.
- f. Provisions for physical training.

## 8. Student organizations:

- a. Literary.
- b. Social.
- c. Athletics.

## 9. Opinions of teachers:

- a. Examinations.
- b. Syllabus.
- c. Suggestions.

## 10. General remarks:

- a. Discipline.
- b. Character of work done.



## APPENDIX E.

SET OF DOCUMENTS FROM THE OFFICE OF THE EDUCATION DEPARTMENT,  
TORONTO, RELATING TO THE INSPECTION OF HIGH SCHOOLS AND COLLEGI-  
ATE INSTITUTES.

## I.

TORONTO, ———, 189—.

DEAR SIR: In order to facilitate the inspection of your school, be so kind as to fill in at your earliest convenience the inclosed forms and to have ready for inspection the drawing books and bookkeeping sets presented at the last primary examination and the catalogue of the library, apparatus, maps, and gymnasium equipment. Please, also, have ready for my use a copy of the time-table of each teacher and a special copy of your general time-table, showing the work of each form.

I propose to pay my annual visit of inspection during the current half year; and as I am directed to report on the ordinary condition of your school, I shall feel obliged by your notifying me immediately to the above address should anything be likely to interfere, before inspection, with your usual routine.

Yours, truly,

—————,  
*High-school Inspector.*

PRINCIPAL HIGH SCHOOL (or Collegiate Institute).

## II.

[To be filled in by the principal on receipt and retained by him until the inspector's visit.]

*High-school inspector's annual report, 189—.*

HIGH SCHOOL OR COLLEGIATE INSTITUTE AT ———.

## I. Staff.

| Names of teachers. | Qualifications. (a) | High and public school experience. (b) | Date of appointment. | Salary. | Subjects taught. [To be fully detailed.] |
|--------------------|---------------------|--|----------------------|---------|--|
|                    | { (1) .....         |  |                      |         |  |
|                    | { (2) .....         |  |                      |         |  |
|                    | { (1) .....         |  |                      |         |  |
|                    | { (2) .....         |  |                      |         |  |

a Give (1) nonprofessional standing [in the case of university men, name the university]; and (2) date of professional certificate, indicating whether ordinary or specialists.

b State separately.

II. University standing, in honors, (a) of teachers appointed since last inspection.

## III. Attendance.

[Statement to be based upon the attendance for the current half year.]

|  | Form I. | Form II. (b) | Form III. | Form IV. |
|--|---------|--------------|-----------|----------|
| 1. English department.....               |         |              |           |          |
| 2. Mathematical.....                     |         |              |           |          |
| 3. Chemistry .....                       |         |              |           |          |
| 4. Science option .....                  |         |              |           |          |
| 5. Latin .....                           |         |              |           |          |
| 6. Greek.....                            |         |              |           |          |
| 7. French.....                           |         |              |           |          |
| 8. German.....                           |         |              |           |          |
| 9. Commercial.....                       |         |              |           |          |
| 10. Vocal music .....                    |         |              |           |          |
| 11. Drawing.....                         |         |              |           |          |
| 12. Drill, calisthenics, gymnastics..... |         |              |           |          |
| 13. Total regularly admitted boys.....   |         |              |           |          |
| 14. Total regularly admitted girls.....  |         |              |           |          |
| 15. Total provisionally admitted .....   |         |              |           |          |
| 16. Total from high-school district..... |         |              |           |          |
| 17. Total county.....                    |         |              |           |          |
| 18. Total other counties.....            |         |              |           |          |

a Give the grade of honors obtained in each department in each year of the university course.

b Insert here the number in the form preparing for the next preliminary examination.

IV. Names of pupils provisionally admitted, with reasons for admission.

V. Fees per year: Residents of district, \$——; county pupils, \$——; nonresidents, \$——.

VI. Names of text-books not in the authorized list used by pupils of Form IV.

VII. Changes in accommodation since last visit of inspection.

VIII. Analysis of time-table.

[Please fill in the number of times a week each subject is taken up in each subdivision of the departmental forms, noting where subjects are taken together, and where there is a difference in the length of the lesson spaces.]

Length of lesson spaces ——.

| Name of subdivision of form.                 | Form I. |  |  |  |  | Form II. | Form III. | Form IV. |
|--|---------|--|--|--|--|----------|-----------|----------|
| English:                                     |         |  |  |  |  |          |           |          |
| Grammar .....                                |         |  |  |  |  |          |           |          |
| Rhetoric and composition .....               |         |  |  |  |  |          |           |          |
| Essays .....                                 |         |  |  |  |  |          |           |          |
| Literature .....                             |         |  |  |  |  |          |           |          |
| Supplementary reading .....                  |         |  |  |  |  |          |           |          |
| History .....                                |         |  |  |  |  |          |           |          |
| Geography .....                              |         |  |  |  |  |          |           |          |
| Reading .....                                |         |  |  |  |  |          |           |          |
| Dictation .....                              |         |  |  |  |  |          |           |          |
| Mathematics:                                 |         |  |  |  |  |          |           |          |
| Arithmetic .....                             |         |  |  |  |  |          |           |          |
| Algebra .....                                |         |  |  |  |  |          |           |          |
| Euclid .....                                 |         |  |  |  |  |          |           |          |
| Trigonometry .....                           |         |  |  |  |  |          |           |          |
| French:                                      |         |  |  |  |  |          |           |          |
| Grammar, composition, and conversation ..... |         |  |  |  |  |          |           |          |
| Authors .....                                |         |  |  |  |  |          |           |          |
| German:                                      |         |  |  |  |  |          |           |          |
| Grammar, composition, and conversation ..... |         |  |  |  |  |          |           |          |
| Authors .....                                |         |  |  |  |  |          |           |          |
| Latin:                                       |         |  |  |  |  |          |           |          |
| Grammar and composition .....                |         |  |  |  |  |          |           |          |
| Authors .....                                |         |  |  |  |  |          |           |          |
| Greek:                                       |         |  |  |  |  |          |           |          |
| Grammar and composition .....                |         |  |  |  |  |          |           |          |
| Authors .....                                |         |  |  |  |  |          |           |          |
| Science:                                     |         |  |  |  |  |          |           |          |
| Botany .....                                 |         |  |  |  |  |          |           |          |
| Physics .....                                |         |  |  |  |  |          |           |          |
| Chemistry .....                              |         |  |  |  |  |          |           |          |
| Zoology .....                                |         |  |  |  |  |          |           |          |
| Commercial:                                  |         |  |  |  |  |          |           |          |
| Writing .....                                |         |  |  |  |  |          |           |          |
| Bookkeeping .....                            |         |  |  |  |  |          |           |          |
| Stenography .....                            |         |  |  |  |  |          |           |          |
| Drawing .....                                |         |  |  |  |  |          |           |          |
| Physical education:                          |         |  |  |  |  |          |           |          |
| Drill and calisthenics .....                 |         |  |  |  |  |          |           |          |
| Gymnastics .....                             |         |  |  |  |  |          |           |          |
| Average attendance in subdivision .....      |         |  |  |  |  |          |           |          |

#### IX.

NOTE.—The grading of each department is based upon the inspector's estimate of, first and chiefly the ability of the teacher or teachers; and, secondly, the organization. In the case of science the equipment and accommodations are also taken into account. For Grade I the following are indispensable: in English, supplementary reading in English literature; in mathematics, provision for mental arithmetic; in science, practical work by the pupils in each subdepartment; in classics, attention to pronunciation and practice in sight translation; in French and German, attention to pronunciation and conversation and practice in sight translation; and in the commercial department, stenography.

Provision in each form for—

- (1) Sight work in classics and French and German.
- (2) Conversation in French and German.
- (3) Mental arithmetic.
- (4) Supplementary reading in English literature.

Certified correct.

——, 18—.

(Form 87.)

——, Principal.

## I.

*High-school inspector's annual report, 189—.*

## HIGH SCHOOL (OR COLLEGIATE INSTITUTE) AT —.

*I. Accommodations.*

[Any improvements made in the accommodations and reported to the department before the 31st day of December next will be taken into account in the ensuing distribution of the high-school grant.]

|                           |                                  |                       |
|---------------------------|----------------------------------|-----------------------|
| 1. Water-closets .....    | 6. Halls .....                   | 11. Blackboards ..... |
| 2. Water supply .....     | 7. Waiting rooms .....           | 12. Lighting .....    |
| 3. School grounds .....   | 8. Cap rooms .....               | 13. Heating .....     |
| 4. School buildings ..... | 9. Teachers' private rooms ..... | 14. Ventilation ..... |
| 5. Class rooms .....      | 10. Desks .....                  |                       |

*II. Equipment.*

[Any additions made to the equipment and reported to the Department before the 31st day of December next will be taken into account in the ensuing distribution of the high-school grant.]

|  | Library. | Apparatus. | Maps, globes, etc. | Gymnasium and equipment. |    |
|--|----------|------------|--------------------|--------------------------|----|
| Value at date of last inspection ..... | \$       | \$         | \$                 | \$                       | \$ |
| Value of additions made since .....    |          |            |                    |                          |    |
| Present value .....                    |          |            |                    |                          |    |

*III. Organization.*

- Subjects on the programme not taught, —.
- Provisions made for teaching, —.
  - Writing, —.
  - Reading, —.
  - Drill, calisthenics, and gymnastics, —.
  - Other subjects, —.
- Division of duties among teachers, —.
- Ratio of pupils to teachers, —.

*IV. Character of the teaching.*

The grading under each head ranges as follows: I.—Good; II.—Fair; III.—Poor; and IV.—Bad.

The grading of each department is based upon the inspector's estimate of, first and chiefly, the ability of the teacher or teachers, and, secondly, the organization. In the case of science, the equipment and accommodations are also taken into account. For Grade I, the following are indispensable: In English, supplementary reading in English literature; in science, practical work by the pupils in each subdepartment; in classics, practice in sight-translation; in French and German, attention to pronunciation and conversation and practice in sight translation; in the commercial department, stenography.

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|--------------------|--------------------------|--|
| 1. English, —;     | 5. French and German, —; | 8. Reading, —;                             |
| 2. Mathematics, —; | 6. Commercial, —;        | 9. Drill, calisthenics, and gymnastics, —. |
| 3. Science, —;     | 7. Drawing, —;           |  |
| 4. Classics, —;    |                          |  |

*V. Miscellaneous.*

- Staff, —.
- Discipline, —.
- Attendance, —.
- Text books, —.
- Registers: Daily, —; general, —.
- Supplementary reading in English literature: —.
- Character of the pupil's work in Forms I and II in—
  - Reading:
    - Last class of entrants: Of — examined, — are good; — fair; — poor, and — bad.
    - Other pupils: Of — examined, — are good; — fair; — poor, and — bad.
  - Writing:
    - Last class of entrants: General character of work, —.
    - Other pupils: General character of work, —.

Primary examination, June, 189—.

(a) Bookkeeping: Amount, —; standard, —.

(b) Drawing: Amount, —; standard, —.

(c) Reading: General character, —.

*IX. General remarks.*

Date of inspection, — —, 189—.

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APPENDIX C.

*PREPARATION OF COLLEGE STUDENTS IN THE UNITED STATES.*

Number of colleges and collegiate departments of universities reporting, 213.

Number of freshmen, 8,273.

Prepared in preparatory departments of colleges, 39.28 per cent.

Prepared in private secondary schools, 21.59 per cent.

Prepared in public high schools, 36.26 per cent.

Prepared by private study, 2.87 per cent.

(See p. —.)

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APPENDIX D.

*RELIGION AND THE STATE SCHOOL SYSTEM IN UPPER CANADA.*

[From The Educational System of the Province of Ontario, prepared for the Columbian Exhibition by John Millar, B. A., deputy minister of education, printed for the education department, Toronto, 1892-93.]

ITS RELATIONS TO CHURCHES.

There is no established church in Ontario or connection between church and state. The constitution gives the Province control of its educational affairs, and the great majority of the people believe that schools and colleges should be nondenominational. No religious body has any voice in the management of the high and public schools or the university. These institutions are, however, far from being "godless" or irreligious. Though not religious, they are institutions of a Christian people. The doctrines of no church are taught, but the principles of Christianity form an essential feature of the daily exercises. The teachers are, with very rare exceptions, men and women of high moral character. The cooperation of the clergy of all denominations in educational gatherings is quite common, and recognition of religion is fully shown in the following regulations which have been prescribed by the education department:

(1) Every public and high school shall be opened with the Lord's Prayer and closed with the reading of the Scriptures and the Lord's Prayer, or the prayer authorized by the department of education.

(2) The Scriptures shall be read daily and systematically without comment or explanation, and the portions used may be taken from the book of selections adopted by the department for that purpose, or from the Bible, as the trustees, by resolution, may direct.

(3) Trustees may also order the reading of the Bible or the authorized Scripture selections by both pupils and teachers at the opening and closing of the school, and the repeating of the ten commandments at least once a week.

(4) No pupil shall be required to take part in any religious exercise objected to by his parents or guardians, and in order to the observance of this regulation, the teacher, before commencing a religious exercise, is to allow a short interval to elapse during which the children of Roman Catholics and of others who have signified their objection may retire.

(5) If, in virtue of the right to be absent from the religious exercises, any pupil does not enter the schoolroom till fifteen minutes after the proper time for opening



the school in the forenoon, such absence shall not be treated as an offense against the rules of the school.

(6) When a teacher claims to have conscientious scruples in regard to opening or closing the school as herein prescribed, he shall notify the trustees to that effect in writing; and it shall be the duty of the trustees to make such provision in the premises as they may deem expedient.

(7) The clergy of any denomination, or their authorized representatives, shall have the right to give religious instruction to the pupils of their own church in each schoolhouse, at least once a week, after the hour of closing the school in the afternoon; and if the clergy of more than one denomination apply to give religious instruction in the same schoolhouse, the board of trustees shall decide on what day of the week the schoolhouse shall be at the disposal of the clergymen of each denomination at the time above stated. But it shall be lawful for the board of trustees and clergyman of any denomination to agree upon any hour of the day at which a clergyman, or his authorized representative, may give religious instruction to the pupils of his own church, provided it be not during the regular hours of school. Emblems of a denominational character shall not be exhibited in a public school during regular school hours.

The Imperial statute, called the British North America act, which united the provinces forming the Dominion of Canada, guaranteed certain educational privileges to the Roman Catholic citizens of Ontario. The separate schools act, as it is termed, enables Protestants, as well as Roman Catholics, to establish, under certain conditions, schools for themselves. In these schools, in addition to the ordinary course of study for public schools, religious exercises are taken up under direction of the trustees. The education department has not the same authority under the statute over Roman Catholic separate schools as it has over the public schools; yet in the main features, such as the qualification of teachers, excepting those in religious orders, the selection of text-books, except those required for religious exercises, the authority of the department may be said to be the same. There is no provision in the constitution allowing the establishment of separate high schools, and any private or denominational institutions of this kind which have been established receive no legislative aid, nor are their supporters exempted from taxation for the national schools. The Roman Catholics have shown as little disposition as the Protestants to establish denominational schools for secondary education, and the verdict of all classes appears to be that religious convictions are not interfered with, and that Christian principles are strengthened by attendance at the high schools and collegiate institutes. A few church schools have been opened for boys and several ladies' colleges have been established by different denominations. The course of study in these institutions is, in many respects, similar to that in the high schools, and the students frequently write at the same university and departmental examinations.

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#### APPENDIX E.

[Extract from Manual Training and Industrial Education, a report presented to the senate and house of representatives of Massachusetts by a commission appointed by His Excellency Governor W. E. Russell in 1891. (Boston, Wright & Potter, State printers, 13 Post-office Square, 1893.)]

#### RECOMMENDATIONS.

We respectfully submit the following recommendations:

1. That the principles and practice of the kindergarten be taught in the normal schools.
2. That the principles and practice of manual training, so far as applicable in the primary and grammar schools, be taught in the normal schools.
3. That the principles and practice of domestic science be taught in the normal schools.

4. That high schools in which a course in the mechanic arts, approved by the board of education, shall be taught to the boys be established and maintained in all cities having a population of 20,000 or more.

5. That high schools in which a course in domestic science, including sewing and cooking, approved by the board of education, shall be taught to girls be established and maintained in all cities having a population of 20,000 or more.

6. Any city or town which, though not required to do so by law, shall nevertheless establish one or more schools for manual training or industrial education open to boys or girls of 14 or more years of age and with courses of study and exercises approved by the board of education, shall receive from the State treasury an amount of money equal to the amount specifically appropriated by such city or town for the support of such school or schools in each and every year, provided the amount paid out from the State treasury to any one city or town in any one year shall not exceed \$5,000.

7. That the State make provision for the training of teachers of the mechanic arts, by establishing at the Massachusetts Institute of Technology or at the Worcester Polytechnic Institute, or at both these institutions, State scholarships open to such young men as, being otherwise well qualified, shall promise to become, after their course of training, teachers in the public schools of this State.

8. That the duty of advising with and aiding school committees of towns and cities in relation to the introduction of kindergarten instruction into the public schools be made the special duty of an agent of the board of education.

9. That the board of education be by law required to appoint an agent whose special duty shall be to advise and aid in the introduction of manual training and industrial education into the public schools, and to visit and report upon all schools in which such training and education are carried on.

LOUISA PARSONS HOPKINS.

EDWIN P. SEAVER.

GEO. E. McNEILL.

## APPENDIX F.

Among other papers consulted have been the following:

### 1. Annual reports from city and State boards:

The Educational System of the Province of Ontario, by John Millar, B. A., deputy minister of education. Toronto: The Education Department, 1893.

Report of the Minister of Education, Ontario, 1893.

Massachusetts Board of Education, 1892-93. Boston.

Regents' Bulletins, University of State of New York, Albany: No. 11, Organization of University; No. 24, Examination Department; No. 25, Secretary's Report, 1894; No. 26, High Schools and the State.

City of Cambridge Annual Report, 1892. Cambridge.

Superintendent's Annual Report, State of New Jersey, 1893. Trenton, N. J.

Annual Report of Minister of Education, Ontario, 1893. Toronto, Canada.

Annual Report of Secretary of Board of Education, Boston, 1892. Boston, Mass.

Annual Report, Brookline, Mass., 1891, with other papers issued by the superintendent.

Biennial Report, State of Minnesota, 1891-92.

Report of Inspector of High Schools, Minnesota, 1893.

### 2. Regulations and laws, city and State:

Statutes and Regulations, Public and High Schools, Ontario. Education Department, Toronto, 1891.

University of the State of New York. Regents' office, Albany, N. Y.

School Laws, Michigan, 1893.

- Statutes and Regulations, Ontario, 1891. Toronto.  
 Statutes of Massachusetts, 1892. Boston, Mass.  
 Regulations, City of Boston, 1893. Boston, Mass.  
 Manual of the High School Board, 1894. State of Minnesota.
3. Documents issued from the Bureau of Education:  
 Annual Reports, 1889-1892. Government Printing Office, Washington.  
 Federal and State Aid to Higher Education, by Frank W. Blackmar, Ph. D. 1890.  
 Promotions and Examinations in Graded Schools, by Emerson E. White, LL. D. 1891.  
 Department of Superintendence of the National Educational Association, 1888.  
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4. Papers relating to the higher training of teachers:  
 Harvard University—  
   (1) Science Course for Teachers.  
   (2) Courses in Education and Teaching.  
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 Annual Report of the Normal College, New York.  
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 University of City of New York. Prospectus of the School of Pedagogy, 1894.  
 The Professional Preparation of Secondary Teachers in the United States, by Fred Atkinson. Leipzig, Breitkopff u. Haertel. 1893.  
 Provincial School of Pedagogy, Ontario: Departmental Regulations, September, 1894.
5. Papers on manual and physical training:  
 Report of Director of Physical Training. Boston.  
 Catalogue of the Public Industrial Arts Schools. Philadelphia.  
 Manual Training and Industrial Education, 1893. Boston.  
 (Report to the Senate and House of Representatives of Massachusetts.)  
 Manual Training: An Address by Prof. Nicholas Murray Butler, president of the New York Teachers' College.
6. Miscellaneous pamphlets:  
 The Schools of England and Germany, by the Hon. G. W. Ross, minister of education for the Province of Ontario.  
 The Present and Future of Harvard College, by Prof. W. W. Goodwin, Boston, U. S. A.: Ewin & Co. 1891.  
 The New England Association of Colleges and Preparatory<sup>1</sup> Schools, 1887-1892. (Various papers on Admission to College, etc.)  
 The Relation of the State to Education in England and America, by Prof. Isaac Sharpless, Haverford College. Philadelphia: American Academy of Political and Social Science, No. 87.  
 United States History and Civil Government: A Syllabus of Instructions, by Dr. MacAlister, president of the Drexel Institute, formerly superintendent of schools. Philadelphia.  
 Catalogue of Pedagogic Library for the use of the Teachers of Philadelphia, by the same.

<sup>1</sup> i. e., Secondary schools.

## RÉSUMÉ OF ANSWERS SENT BY TEACHERS IN ONTARIO TO A CIRCULAR OF THE ROYAL (BRITISH) COMMISSION ON SECONDARY EDUCATION.

*Question 6 of circular:* How far is secondary education given free of charge in your colony, and how has the system worked?

[From Mr. John Seath, high-school inspector for Ontario.]

(1) In this Province, as elsewhere, there are a number of scholars "whose circumstances would lead them to earn their living by manual labor, and particularly by agricultural labor, but who are unwilling or unfitted to do so." Owing, however, to the continued opening up of unsettled parts of the Dominion, and especially to the proximity of the United States, we have so far experienced no serious difficulty from this source. Large numbers of Canadian clerks and lawyers and doctors readily find remunerative employment in the Northern and Western States of the Union, thus relieving to a large extent the overproduction of those who are unwilling or unfitted to earn their living by manual labor. In this Province, I may add, there is no lack of mechanics or of farm hands (except, occasionally, of the latter during the harvest). Many of these also emigrate—farmers to the northwestern territories, and now and then to the United States, and mechanics to the United States chiefly. Ontario is now pretty thickly populated, and in this respect its condition resembles that of the mother country. We are suffering from the overcrowding of the legal and medical professions and the "genteeler" employments, but owing to the exceptional position of the Province we do not suffer nearly so much as is understood to be the case in the older countries of Europe.

(2) It would be wrong, I think, to attribute the existence of a class that are disinclined to or unfit for manual labor primarily to overeducation or to education out of their sphere. To do so would be to mistake for the real cause one of the immediate effects. The condition of matters under consideration is due, I believe, to one of the strongest sentiments of modern civilization. There are few nowadays who do not desire to improve their own social status or to enable their children to do so, and the higher the civilization the greater the desire. Theoretically, manual labor is esteemed; practically, it is a bar to social advancement. This feeling exists here, though not nearly to the same extent as in the mother country. Besides, many men are by nature disinclined to physical exertion; they prefer mental to physical toil. This is especially true of those who do not realize the fact that mental toil is more laborious and exhausting than physical. The higher education is consequently eagerly sought after as a means of gratifying these feelings. Civilization also engenders or at least stimulates the desire to live in centers of population, where life is pleasanter and the facilities for enjoyment are greater than in the country. If secondary schools exist in these centers it is clear that they will be utilized at all hazards, and that so long as human nature is constituted as it is we can not materially reduce the objectionable pressure by barring the doors of the secondary schools to all except the wealthy. It is, as I have said, wrong to attribute this overpressure to overeducation; the prime motive has its roots in human nature. During the last ten years the attendance at the secondary schools in this Province has been almost doubled, and consequently the output from the secondary schools has been largely increased. This has been due to the general advancement of the Province, the improvement of our public schools, and to the number, efficiency, and cheapness of our secondary schools. The urban population of this country has also increased more rapidly than the rural population, owing to the protective financial system of the Dominion, which has fostered the establishment of factories, situated, of course, in centers of population where there are railways and other facilities. In these, also, are situated the high schools and collegiate institutes, so that this cause has also increased the number of those averse to manual labor.



(3) As to the remedies. If I am right that this objectionable condition of affairs is due to the constitution of human nature, it is to human nature that we should look for the remedy. In the struggle for existence if a man fails to secure a livelihood in one way he will try to secure it in another, even if he has to work with his hands. He will take care, also, that his children do not make their father's mistake. Experience will teach the lesson that a good education makes the farmer and the mechanic better workmen, besides adding to their means of enjoyment. Experience will also teach that manual labor is quite as honorable and at least as healthy as mental labor. So far as I can see, the only school in which man can learn these lessons is that of experience. Learned there, they will be effective. A good deal may, however, be done by those in authority to set matters right.

(a) Access to the professions should be barred to all except those of good attainments and mental ability. In this Province or elsewhere it has been too easy to become a lawyer or a doctor or a teacher, and in particular the university matriculation examination has been too easy. These defects we are gradually removing in this Province. The new curricula will exact a higher standard.

(b) Much may be done to better the condition of the farmer in particular and increase the dignity of his lot. In this Province various effective means have been taken to secure this result. One of the ministers of the local cabinet has charge of agriculture, and is himself a farmer. The agricultural college has also done much to raise the status of the farmers. Agriculture is thus always "in evidence" with us. A third political party, consisting of farmers, has recently arisen here, which, it is said, will hold the balance of power in the Ontario legislature.

[From Mr. J. E. Bryant, M. A.]

Does it unduly draw children away from the farm and lead to their crowding into cities?

It certainly does conduce to the drawing away of children from the farm and the crowding of them into the cities, but whether "unduly" or not is a matter, perhaps, for difference of opinion. There is no inherent virtue in country life that it should be specially concerned, no inherent viciousness in city life that it should be specially deprecated. The fault of our secondary education system lies not in the fact that it is inimical to country life, but that it is inimical to industrial pursuits of every sort. In this it shares responsibility with almost every other national system. Youth is the period not only of learning but of adaptation. The ideals of life are fixed before the age of maturity fully sets in. The result is that a boy educated at one of our secondary schools, with no ideal of life before him but that of some intellectual pursuit, generally adapts himself to that ideal, and becomes, by sheer force of environment, a candidate for some such profession as law, medicine, theology, or pedagogy. The remedy lies (and the word "remedy" is a correct one, for the phenomenon is one of disease, not of normal social order) in the adaptation of our secondary system of instruction not alone to those intellectual pursuits mentioned, but to all other pursuits proper to a well-constituted social order, that is, to the so-called industrial pursuits as well as to the professional ones.

[From Mr. A. H. Morrison, late English master, Brantford Collegiate Institute.]

The professions to-day in Canada, including those of law, medicine, and education, are filled to overflowing with a mass of the so-called educated, who have renounced their legitimate callings on the farm, or at the counter, or in domestic service to inundate the cities, towns, and villages with a deluge of professional mediocrity or worse.

It is not too much to say that many professional men who have been educated at the high schools of Ontario, and who have taken degrees and diplomas at the university, are to-day in a state bordering upon actual want. They can not dig, or will not, having become sensitive by contact with letters, while to beg they are ashamed;

and it requires little keenness of observation to trace the cause of much of the social unrest, distress, and despair of the present age to the virus of miseducation which has infected the blood of the body politic.

A high education engenders wants, desires, aspirations, ambitions. How are these to be gratified?

The thousands that are annually forsaking the country districts and manual labor for the city and its avocations, especially that of teaching, will not return to the country when their educational term is completed, unless it be to take a position as teacher in a rural school, at a salary that would be flouted by a bartender, and this merely as a means to obtain a little more money wherewith to prosecute further studies in medicine, divinity, or law.

A little learning is a dangerous thing, and it is but a little learning that the high schools, as at present constituted, can give. True, the subjects are many, by far too many; there is nothing too lofty nor too erudite for their curricula, from Greek to geometry, Latin to literature, algebra to acoustics, dynamics to drill, psychology to sectarianism, arithmetic to agriculture, trigonometry to temperance; but it is merely veneer, the smattering begotten of systematic cram and ceaseless examinations.

The young man comes to the high school fresh from the country. He may or may not have had some preliminary training in the higher grade subjects taught in the upper schools. He has had to pass a certain examination for entrance—that is to say, he has had to obtain a certain percentage of marks in the following subjects: Reading, English literature, orthography and orthepy, geography, English composition, outlines of Canadian history, arithmetic, writing and drawing, physiology and temperance, but of classics or moderns, or science, or anything approaching to correct, not to say literary, English he need know little or nothing. These things have to be crammed into him at the shortest possible notice by men, or women, so-called specialists, who, more particularly in the smaller schools, are heavily handicapped in their work, being often compelled to teach half a dozen subjects with one or two of which alone they are familiar. In a certain provincial high school the head master, a specialist in French and German, has had to take, besides his own subject, mathematics and science, knowing as much about the last, upon his own confession, as the majority of the students themselves. In another collegiate school drill and gymnastics were coupled with English language and literature, albeit the instructor (*sic*) knew no more of club swinging than of Choctaw, and had not been inside of a gymnasium for twenty-five years.

The outcome may be imagined—superficiality, theory, mere rote work. Of course the larger schools are better officered and equipped, but even in these much of the work done is of the most perfunctory nature, and three-fourths of it worthless to the student in his after life.

The cause of much of the haste, superficiality, and mental indigestion is directly attributable to the fact that we are all attempting to do in one year or two years what should properly take two or four years to accomplish.

The majority of the sufferers plead poverty as an excuse for haste. They can not afford, even with State aid, to protract their time of studies. And now comes in one of the most burning of all the vexed questions connected with the popular education theory. To what extent has the pleader of poverty a right to higher education at all? Is it not a luxury, to be paid for like other luxuries? Is the State bound to provide Greek, Latin, Anglo-Saxon, and the higher mathematics any more than it is bound to provide carriages and horses, footmen, and heraldic devices?

Is popular higher education tending in "this Canada of ours" to happiness and contentment? So far as we have been able to judge we unhesitatingly say it is not, for with education have arisen aspirations that can not be gratified save at the cost of simplicity and honor; the limitations remain the same as before, the desires are doubled or trebled.

As we have already observed, there is a class of students to be found in every high

school of the province to whom certain of the preceding remarks do not apply. They are the children of wealthy men, or of intelligent men, who desire a more systematic and thorough training for their sons and daughters than that accorded to the mere examination hobbyist. These take their studies more deliberately, remain longer in the classes, and usually have the advantage of entering the high schools at an early age, passing into them from the public schools by competitive examination. Many of these students do not enter for the university, or learned professions, or final examinations at all. They drop out sometimes to go to private or to special institutions; sometimes, especially in the case of the girls, to assume home duties; sometimes to obtain clerkships, or assist their fathers in their respective callings. It is to be regretted that many of the best and brightest students thus pass away and are lost, while of those that remain a large percentage are from the country or from the humbler classes, whose sole aim is the teacher's certificate or the coveted pass which admits them to the university, and so to the threshold of the overburdened, underpaid, and often ill-served professions.

REPLIES RECEIVED FROM MR. CHARLES W. ELIOT, PRESIDENT OF HARVARD UNIVERSITY, CAMBRIDGE, MASS., IN ANSWER TO A CIRCULAR SENT OUT BY THE ROYAL (ENGLISH) COMMISSION ON SECONDARY EDUCATION.

*Questions.*

1. What is your experience of the education of boys and girls in the same day schools or in the same day classes?
2. What is your opinion of the working of the system and as to the conditions most favorable to it as regards—  
Age of scholars?  
Size of the school?
3. How best may provision be made for the passing of the scholars from one class of school to another, and for giving aid to poor scholars of promise?
4. What has been found to be the best way of bringing technical into proper relation with general education in your secondary schools?
5. What provision exists for the training of secondary-school teachers? How far is such training provided in connection with the universities?
6. It has been said that the secondary schools of the United States turn out a large number of scholars whose circumstances would lead them to earn their living by manual labor, and particularly by agricultural labor, but who are unwilling or unfitted to do so, and have little prospect of finding congenial employment. How far, if at all, is that statement true? If true, to what cause or causes do you attribute it? And what remedies would you suggest?
7. What proportion of students enter your universities without having previously passed through a secondary school?
8. Has there been any material change since 1865 in the system of public secondary education in your State? If so, what, and on what grounds was it called for? Is the result satisfactory?
9. Has there recently been any considerable increase in the number of private schools in your State? If so, to what cause do you attribute this increase?

1 and 2. In the free public schools of the United States boys and girls are, as a rule, educated together up to the age of 18 or 19, the schools being invariably day schools. The exceptions to this rule are insignificant in number. The preparatory departments maintained by many colleges and universities admit, as a rule, both boys and girls, and these are generally boarding schools. The State and city normal schools, as a rule, admit both men and women, but the women are in great majority. Many of the so-called colleges which admit young men and women are really only secondary schools for persons whose education has been belated. The custom of the country, speaking broadly, is to educate boys and girls together "in the same



day schools or in the same day classes." The method is practicable, economical, and free from serious evils or embarrassments.

In the Eastern part of the United States, among well-to-do people, separate schools for boys and for girls are preferred for children over 12 or 13 years old. In this part of the country, therefore, private and endowed schools, charging tuition fees, are maintained for girls or for boys separately; and the same practice is well established in the large cities of the Western States. These private and endowed schools are sometimes day schools and sometimes boarding schools. An illustration of the strength of this preference has lately been given in Boston, where a private day school expressly intended to keep boys and girls together up to the age of 18, and conducted with great intelligence and generosity, has just been abandoned as hopeless after years of patient effort. The creation of several separate colleges for women in the Eastern States within the past twenty-five years, in spite of the fact that many institutions originally intended for men have been opened to women during the same period, illustrates the same tendency of public opinion.

In my opinion, the education of boys and girls together works well up to 10 or 12 years of age. After that age there seems to me to be advantage in separating the two sexes. The size of the school is not an important consideration, for a large school may easily be divided into small classes or sections. The principal considerations seem to me to be, first, the homogeneity of the community—the more homogeneous the community as regards race, religion, and mode of life the better mixed schools work—and, secondly, the pecuniary competency of the community to provide separate schools for older girls and older boys. Separate schools cost more, and in rural communities are almost impracticable. In most American communities the opinion prevails that girls should have as good an education as boys. The easiest and cheapest way to give effect to this opinion is to teach the girls and boys together.

3. By "the passing of scholars from one class or school to another" I understand the passing of scholars from a primary school to a higher elementary school, and from that higher elementary school to a secondary school. In the United States parents usually keep their children in the public schools so long as they can afford to dispense with the children's labor. Nevertheless not over 5 per cent of the children ever reach a secondary school. The determining consideration is the pecuniary condition of the family, the public schools, secondary as well as elementary, being all free. There is no provision in the United States for giving aid to good scholars in the elementary schools who desire to resort to the secondary schools, but whose parents are not able to give them that privilege. It must be remembered that there are immense tracts of territory in the United States where there are no secondary schools. Cities and large towns ordinarily maintain them, the rural districts seldom.

4. In a considerable number of American cities shops in which various forms of manual training can be given have been added to the public secondary school called the high school. In Boston a separate secondary school called the Mechanic Arts High School has recently been established at public expense. In Cambridge, near Boston, private munificence has provided a manual training school which is in association with the public high school, so that the pupils do part of their work in the high school and part of it in the manual training school. All these recent developments must still be described as experimental. It is not yet clear how manual and technical subjects are to be dealt with in the secondary schools of the United States. The private and endowed schools have made very little effort in this direction. They have recently introduced laboratory methods of teaching sciences, but they have not introduced anything which can properly be called technical education.

5. The best secondary school teachers in the United States are graduates of colleges or scientific schools—that is to say, they have ordinarily received the degree of bachelor of arts, or bachelor of philosophy, or bachelor of science. Within a few years past several American universities have introduced instruction in pedagogy, or at least in the history and art of teaching. The normal schools of the United



States have been thus far schools of a grade but little, if at all, above that of the public secondary schools called high schools, so that the great majority of their graduates are only fit to teach in the elementary schools. This very year a movement has begun to raise the grade of the normal schools of Massachusetts, the intention being to require graduation at a high school for admission to a normal school.

6. The public schools of the United States, being situated, as a rule, in large towns and cities, have very little to do with the children of farmers or of agricultural laborers. They are resorted to, however, by large numbers of the children of mechanics and other persons who get their living by some form of manual labor. It seems to me to be true that the graduates of high schools, both young women and young men, endeavor in after life to earn their living in the lighter and more agreeable employments, in which brains tell for more and muscles for less. No other result could be anticipated. That is just what educated people of all sorts and conditions expect to do. An education which does not produce this effect has certainly missed one of its important objects. I have never observed that the graduates of secondary schools in the United States had more difficulty in finding congenial employment than other young people. I should suppose, on the contrary, that they would have less difficulty. The question does not seem to me to refer to any real evil. It is not the object of an education prolonged till 18 or 19 years of age to produce a coal heaver, or a scullion, or an agricultural laborer, in the English sense of that term. In the higher departments of farm labor in the United States there is, as in other countries in which agricultural machinery is much used, quite as much opportunity for the exercise of trained intelligence and skill as in a machine shop or a factory. In the Western States, therefore, the children of farmers resort in considerable numbers to the universities and to the preparatory schools connected with colleges and universities.

7. I can only answer this question with reference to Harvard University, for I am not familiar with the facts of any other institution. During the past twenty years from one-eighth to one-fifth of the young men admitted year by year to Harvard College (the department which gives the degree of bachelor of arts) had been prepared by private teachers and had not passed through a secondary school, or at least had not completed the course of a secondary school. All the professional departments of Harvard University maintain admission examinations, but the grade of these examinations is below the grade of the examination for admission to Harvard College, except that the theological school accepts no students as candidates for its degree who do not already hold, on entering the school, an academic degree. After the academic year 1895-96 this same regulation will obtain in the law school. I have no means of ascertaining what proportion of students have heretofore entered Harvard University in the professional schools without having previously passed through a secondary school. In general, it has been true throughout the United States that the schools of law and medicine have been open to any applicant, no matter what his previous training might have been, and that the scientific or technological schools have been open on much easier terms than the colleges. The secondary schools have, therefore, lacked the support which they should have received from the institutions of technical and professional education. The colleges may be said, in a rough way, to have given support to secondary education; but owing to the fact that secondary schools have not existed in anything like adequate numbers, many colleges and universities, particularly in the Western States, have felt forced to maintain preparatory departments of their own. In recent years there has been a tendency among the stronger institutions to abandon their preparatory departments.

8. There has been no single material change since 1865 in the system of public secondary education in Massachusetts, but there has been a gradual improvement in the free secondary schools, and there has been an increase in the number of schools called secondary or high. Interesting changes are the increased importance of the superintendent's or supervisor's function, the free provision of text-books, the free transportation of children to central schools from outlying districts, the increased

attention to the English language, the gradual introduction of proper methods of teaching the sciences, and the progressive modification of the traditional school curriculum which admitted Latin, Greek, and mathematics, and little else. All these changes have affected elementary as well as secondary schools.

9. The number of private schools, both elementary and secondary, maintained by the Roman Catholics in Massachusetts has decidedly increased; and the relative influence of private and endowed schools in Massachusetts has also increased within the last twenty years. This is partly the effect of the increased heterogeneousness of the population, both as regards race and mode of life. It is partly due also to the fact that the private and endowed schools have established a distinct superiority to the public schools, because they are freer to experiment with new methods of instruction and to adopt methods which prove to be good, and because they spend more money per pupil. In Massachusetts it has been the private and endowed schools which have adopted most promptly the improvements in education urged upon schools by colleges and universities.

#### MEMORANDUM ON THE TRAINING OF TEACHERS IN ENGLAND.

[By J. G. Fitch, esq., LL. D.]

(1) The importance of giving definite professional preparation to teachers has long been fully recognized in the sphere of elementary education. From the foundation of the two great societies—the National Society and the British and Foreign School Society in 1811 and in 1808, respectively—persons desiring to become teachers in National or British schools were received at the Sanctuary, in Westminster, or at the Borough Road to “learn the system” by a few months’ attendance at the model schools; the Home and Colonial School Society established its training school in 1836; and before any public grants were made for the purpose in England, Dr. J. Phillips Kay, afterwards better known as Sir James Kay-Shuttleworth, had, by private effort and in conjunction with Mr. Carleton Tuffnell, succeeded in establishing a training school at Battersea. In 1839, when, under Lord Melbourne’s Government, a committee of the privy council was appointed to administer such funds as might be voted by Parliament for public education, among the first proposals made by that committee, at the suggestion of its secretary, Dr. Kay, was one for the establishment of a State normal institution for the training of teachers. This proposal was not adopted by the legislature, but encouragement was given to religious and voluntary bodies, and by 1846, when the first minutes of council were issued, 9 training institutions, including Whitelands, Warrington, and St. Mark’s, Chelsea, had been established. Within the ten subsequent years many diocesan colleges, the Wesleyan Training College at Westminster and the Roman Catholic College at Liverpool, were added to the list, and there are now 43 residential training institutions in England and Wales. They all owe their origin to local effort, to educational societies and religious bodies, but receive large subventions from the education department, amounting to about three-fourths of the annual cost of their maintenance.

(2) The professional qualifications of a teacher, which it is the business of a training college to provide, are held to include:

- (a) A full and thorough knowledge of the subjects to be taught.
- (b) Acquaintance with the best methods and rules of school organization, teaching, and discipline, and with the principles which underlie those rules.
- (c) So much of the elements of ethics, logic, and psychology as has a bearing on the art and philosophy of teaching.
- (d) Some knowledge of the literature of education and of the lives and works of famous teachers.
- (e) Actual practice under supervision in the art of teaching a class and conducting a school. [By the regulations of the department, every student is required to

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<sup>1</sup> From vol. 5 of the Report of the Royal (English) Commission on Secondary Education.

spend during the two years of training not less than one hundred and fifty hours in the practicing school.]

(f) Criticism lessons and the preparation of notes and sketches.

(g) Observation of good models, both of teaching and of school organization and equipment.

(3) All experience has tended strongly to confirm the belief in the great value of this discipline. There are, of course, exceptions. On the one hand, a few persons enter the profession so remarkably qualified by personal enthusiasm and special aptitude that they achieve success without any technical training; and on the other, it is possible for some to pass through the whole of such a course who fail to be inspired by it, and who are, after all, content to fall into routine and to remain in the lower ranks. But these cases are comparatively rare. All school managers know that there is, as a general rule, an enormous difference between the trained and the untrained teacher; and that although many of the candidates who pass through the normal colleges can not be said to possess a liberal or an extended general education, yet what they know they can teach by right methods and with good effect. Indeed, all who are familiar with the kind of teaching to be heard in ordinary grammar schools and middle schools, and who have also listened to the lessons given by trained teachers in the elementary schools, are struck by the contrast, by the freshness, the skill, and the variety of illustration to be found in the one, and the dullness, the mechanism, and the mere memory work which often characterize the other. Relatively to the subjects he has to teach, there can be little doubt that, as a rule, the trained elementary teacher is the better craftsman.

(4) It should be observed, however, that a large proportion of the time now devoted to study in the training colleges is necessarily devoted to the first of the purposes enumerated in paragraph 2, owing to the imperfect education generally possessed by the candidates on admission. It is evident that if the students already possessed, or were obtaining in some other way, an adequate acquaintance with the ordinary subjects included in the course of education in all liberal professions alike, the problem would be much simplified, and the time devoted to special normal training might be greatly reduced.

(5) The education department has lately recognized the distinction between general and purely professional qualifications by means of new regulations, e. g.:

(a) By dividing the requirements of the syllabus for the certificate examination into two distinct sections, Part I including reading, recitation, school management, music, the principles and practice of teaching, and (for girls) needlework and domestic economy; and Part II comprising history, literature, language, mathematics, geography, and science, the usual subjects of an advanced course of general instruction.

(b) By retaining in the hands of the department the examination in Part I, and by providing as follows, for all students who may furnish other and satisfactory evidence of their proficiency in the general or academic subjects:

"Students in training colleges who pass in any British university an examination approved by the department will not be required to present themselves for examination in those portions of Part II of this syllabus which were included in that university examination."

(c) By recognizing as day training colleges a new class of institutions—normal classes or departments attached to provincial or other colleges of university rank, in which the students are placed under special instruction in pedagogy from a normal master or mistress, and are so prepared to pass the department's own examination in Part I; while receiving, in common with other students who are not intending to become teachers, instruction from the college professors in the literary and scientific subjects included in Part II.

(6) These proposals have materially modified and are likely in the near future to affect still more significantly the whole problem of training for elementary teachers. Nearly all the most important academic bodies in England and Wales, including the



University of Cambridge, King's and University colleges in London, and Owen's College, Manchester, have expressed their willingness to cooperate with the education department on the basis of its new regulations, and have made arrangements satisfactory to that department for the due instruction and practice of those of their students who desire to become teachers. Liberal grants are now made by the department in respect both to the instruction and the maintenance of such students during their two-years course. There are now, in addition to 43 residential colleges, 14 day training colleges of this new type. In the colleges of the former class there are 1,384 men and 1,961 women, and in the day colleges 284 men and 276 women, but this latter number is likely to be substantially increased ere long.

(7) It is too early to estimate the comparative merits of these two classes of institutions, or to forecast the probable effect of the introduction of a new class of trained agents into the ranks of the elementary teachers. Until we know how the young people trained under the new conditions shall have been found to compare with the existing teachers, not only in attainments but in character, sympathy with the work, and general moral influence, the data for the formation of an accurate judgment are not before us, and it would be premature to hazard an opinion. It may, however, be said that while I have good reason to appreciate the great merits of the residential colleges, the excellence of much of the teaching, and the guarded and careful discipline which at a very critical age is provided for the students, I have long been conscious of some disadvantages in the seminary system. In a community composed exclusively of young people who are of the same age and the same previous experience, who are looking forward to the same future career, and who are taught for the most part by persons similarly trained, there is, as I have said in official reports, a want of breadth and freedom, and an inevitable closeness in the intellectual atmosphere. The students are all working with the same syllabus in view; they see little beyond it, and they have scarcely any opportunity of comparing what they know with the standard of a liberal education as it is recognized in other professions. On the other hand, the students in the day colleges lead a freer life, they are earlier taught to feel responsibility for the employment of their own time, and the conditions under which they receive their general instruction are in some respects more favorable to breadth of vision, self-knowledge, and general culture. There is of course, however, less security for moral and religious discipline, less of comradeship and of opportunity for mutual help. It should be added that in America, Germany, and France, as well as in Scotland, most of the normal students reside at their own homes, and attend the college by day only. It is understood that difficulties respecting the conduct or discipline of the students are very rarely found to arise from this cause.

(8) The whole of the existing system of training colleges in this country, whether for day or residential students, presupposes that the large majority of the candidates have passed through their period of apprenticeship as pupil-teachers, and have reached the age of 18. Hence the two years' course of normal instruction is so planned as to be suitable for students in their nineteenth and twentieth years. But it is manifest that where the pupil-teacher system does not exist other arrangements may be expedient. In the normal colleges of America, and in most continental countries, students are admissible at 16. They are not, however, required to enter on the practice of teaching in schools until the later years of their course.

(9) If it be deemed expedient to make use of the experience which has been gained in the domain of elementary instruction, and to adopt, with needful modifications, some analogous measures for the better preparation and equipment of secondary teachers, it would appear that two of the most effective means of attaining this object are (1) the further development of the existing normal departments in the provincial and other day colleges, and (2) the more direct action and influence of the universities.

(10) In regard to the former of these expedients, it happens that my last report to the education department contains one or two passages which were written in anti-



pation of some such inquiry as that on which the commission is now engaged. I need not, therefore, apologize for reproducing the arguments in this place:

(11) "I look forward with strong hope to a further development, in the near future, of the usefulness of the day training colleges. The need for some form of professional preparation for the teachers in secondary schools is likely to be more and more strongly felt every year. It is a trite thing to say that teaching is a fine art; that it has its rules and laws; that those rules have their true justification in psychology and in the constitution of human nature; that there are right and wrong methods of disciplining and handling a class, of presenting truth to a learner's mind, of organizing a school, and of economizing the time and power of the teacher; and that there are reasons to be given why some are right and others are wrong. These are elementary truths which have been long recognized in connection with the teaching in our primary schools. But although they are applicable to all schools alike, they have hitherto received scant recognition in the sphere of secondary and higher instruction. Already, however, the universities of Cambridge and London have taken measures to encourage intending teachers to study the art and philosophy of teaching and the best educational literature. By some of the most distinguished head masters of public schools, and by such governing bodies as the council of the Girls' Public Day Schools Company, those candidates for appointment who possess the teachers' diploma are *ceteris paribus* preferred, and are found in practice to have a great advantage over others who, though well equipped with knowledge, have never given any heed to the art of communicating what they know. Yet the aspirant to the calling of a secondary or public school-teacher may complain with reason that however he may desire systematic guidance and preparation before entering upon his work, he does not know where to look for it. The existing residential training colleges are not open to him; and the only attempts made in England to establish a training institution for secondary schoolmasters proved to be a failure. Schoolmistresses have from the first shown a keener perception of the need of professional education than their brothers, but the supply of such training, even for them, is lamentably inadequate. The Maria Grey College at Brondesbury, the Cambridge Training College for Women, the department for student-teachers in the famous Ladies' College at Cheltenham, and the nongovernment department at the Home and Colonial Training College, are the only resources known to me by which gentlewomen who wish to qualify themselves as teachers in intermediate and higher schools can obtain systematic instruction.

(12) "In these circumstances, the establishment of normal departments in the great provincial colleges of university rank in England and Wales, and the encouraging success which has already been attained in those institutions, open out an opportune and most hopeful prospect. It is not likely that new institutions expressly designed like the first two just named will be multiplied even for women. Still less is it likely that any such institutions will be successfully established for men. Nor is it quite clear that it would be desirable. Neither in France nor America, nor in any country known to me, is it the practice to require special training in a normal seminary in the case of candidates for teacherships in higher schools. Such seminaries are indeed needed for primary teachers, because the general education of the class from which they are drawn is deficient, and because, in fact, three-fourths of the time spent in those seminaries is required for instruction in language, literature, history, and mathematics, subjects which form essential parts of every system of general education and are required in all liberal professions alike. Presumably the young student who is destined to become a teacher in a high school has acquired all this in some college or university. What he wants is a special course of pedagogic instruction and practice, as a technical supplement to his general studies, analogous to that which would be needed if he contemplated law or medicine as his career. And this special preparation will probably be best found, not in an institution composed exclusively of persons whose whole studies are directed by a syllabus, and with a view to a professional examination, but in a separate normal department

in a good general college, wherein for six or twelve months he may devote himself mainly to a study of the principles and methods of education, and to systematic practice, under due supervision and criticism, in one or more good schools.

(13) "Now, this is precisely the want which the institutions, now newly recognized by your lordships as day training colleges, have it in their power to supply. The authorities of these institutions have already become interested in the professional training of teachers. They have seen the advantage of the practical lessons in school management, and of the theoretical study of methodology which your lordships' regulations prescribe for the future masters and mistresses of elementary schools. They have taken pains to comply with those regulations by appointing a master of method. Besides this, in several cases, notably at Bristol, Nottingham, and Cardiff, one of the most eminent professors gives to the normal students a special course of lectures on so much of logic, ethics, and mental philosophy as has a direct bearing on the art of teaching. And it has thus become evident that, *mutatis mutandis*, much of the same discipline would prove of great value to the teachers of secondary and higher schools. Some modifications would necessarily be made. Much of the student's practice, though not the whole of it, might fitly be obtained in the best secondary or grammar schools in the neighborhood, and the course of theoretical and practical studies would be guided rather by the curriculum set forth by the Cambridge syndicate or the London University senate than by the syllabus of the education department.

(14) "One experiment in this direction is about to be made in connection with the University College at Nottingham. The following is an extract from the public announcement recently put forth by the authorities of that institution:

"UNIVERSITY COLLEGE, NOTTINGHAM.

*"Proposed courses on the science and history of education in connection with the examinations under the teachers' training syndicate (Cambridge University)."*

"The great advance which has been made in educational matters during the last twenty years renders it more necessary than ever that a teacher should possess a sound knowledge of the science of education, as well as proficiency in the art, if he or she is to attain to the highest success in the profession.

"That the education department has fully recognized this is shown by the fact that during the last ten years candidates for the certificate examination have been expected to show an acquaintance with the elementary principles of psychology and logic, in addition to their practical knowledge.

"Two of our universities (London and Cambridge) have for some years past recognized the importance of this department of knowledge by granting a diploma to all candidates who succeed in passing their examinations in the theory, history, and practice of teaching. The London examination is, however, open only to graduates, and hence many teachers are unable to avail themselves of its advantages. At Cambridge, on the other hand, the regulations are much more elastic.

"It is proposed, therefore, to establish a course of lectures at University College, Nottingham, in order to prepare for this examination. The course will be on Fridays from 7 to 8, and will be continued in the third term. The fee will be 5s. per term.

"The main purpose of the course is to enable teachers to obtain a wider and more complete knowledge of the science and history of education.

(15) "In the prospect of any further measures which may attach added importance to the professional qualifications of teachers in all ranks, or which may provide for the registration of such qualifications, it may be expected that the precedent thus to be established at Nottingham will prove to be so useful and successful as to be extensively followed. Grants from the education department will, of course, neither be needed nor asked for on behalf of the additional students received under the new conditions, and such students will take university diplomas and not Government

certificates. But men and women who shall have availed themselves of these new provisions are likely to be distinguished by a truer and broader conception of the teachers' art, and to exercise greater skill in practicing it. Their possible influence on the views and aims which may prevail in the higher ranks of the teachers' profession can not easily be estimated at present, but it can not fail to be beneficial, and I do not doubt that teachers so qualified will be able to render exceptional public service.

(16) "Any such extension of the training system to secondary teachers will bring into view the subject of practicing schools—their supply, their relation to the work of training, and the use which should be made of them. It may be well, therefore, to put on record here the result of such experience as has been gained in connection with the colleges already aided and inspected by the department. A fear has often been expressed that it would be difficult to find proper provision for the practical work of secondary school masters and mistresses, owing to the disturbance which would be caused in the schools and to the unwillingness of the head teachers to allow a class to be made a *corpus vile* on which experiments should be tried. This fear I believe to be groundless. No doubt the presence of one or two teachers who are not on the regular staff interferes a little with the organization, and renders necessary, on the part of the head teacher, some slight adjustment of his plans. But this trifling disadvantage is much more than compensated by the greater freshness, life, and variety which are introduced into the school work by teachers presumably interested in learning their profession and anxious to distinguish themselves. It is a familiar result of experience that there is a higher general level of intelligence in schools which are frequented for purposes of students' practice than in ordinary schools. This is so strongly felt in many places that there is often a competition among the head teachers for the privilege of receiving the visits of the students. The boards at Liverpool, Birmingham, Newcastle, and Sheffield, and other towns place the best of their schools at the disposal of the college authorities, and the teachers regard it as an honor when their schools are selected. I always ask the masters and mistresses whether they find the presence of the students a help or a hindrance, and the answer is almost invariably satisfactory. The head teachers are pleased to have additional influence and opportunities of usefulness; they often give very valuable counsel to the students, and almost without exception they fill up the returns connected with the conduct and teaching powers of the several students in a way which shows insight and sympathy, and furnishes valuable help to the college authorities." (Report of Committee of Council for 1892-93, pp. 159-161.)

(17) In each of two Scotch universities—Edinburgh and St. Andrew's—a special professorship in education has been founded by the trustees of Dr. Andrew Bell's estate. In Cambridge occasional lectures on the science and history of education have been given, and a syndicate has been formed with power to institute examinations and to recommend the granting by the university of special diplomas to intending teachers. The University of London has also instituted similar examinations, the conditions differing in only two main particulars from those of Cambridge, viz, (1) in requiring that none but persons who have already taken a degree shall be candidates, and (2) in insisting that all candidates shall pass the practical as well as the theoretical part of the examination. But it can not be said that at present any English university has taken seriously in hand the professional training of the schoolmaster as an integral and organized department of its academic work.

(18) It is universally admitted that the first duty of a university, to all its students alike, is to give general, not special or professional, education, *literæ humaniores*, the learning which has no visible or immediate relation to the mode whereby a man is to get his living, but which helps him to live and to spend his life worthily. A secondary purpose has, however, always been recognized as legitimately within the scope of a university. This purpose may be described as that of ennobling and liberalizing the higher professional employments and preventing them from degenerating into trades. Accordingly schools of law, of divinity, of medicine, and even



of engineering have found their appropriate places in the organization of universities, and rewards and honors have been awarded to successful students. These students have been for the most part pursuing post-graduate courses and supplementing the general knowledge represented in the ordinary degree by the special reading and exercises appropriate to their several professions. Now, it is much to be desired that the profession of teaching should be placed in a similar position. It is the calling to which large and constantly increasing numbers of graduates are intending to devote themselves, and for which they have at present little opportunity to qualify themselves. It is not unreasonable that they should look to their alma mater for some help and guidance before undertaking their life's work. A school or tripos of education might, as a first step, be established. "Pedagogy," it may be remarked in passing, is an ugly word, to which the ear of the English public is not yet reconciled, although it or its equivalent is generally accepted and understood in France, Germany, Switzerland, and the United States, and can, therefore, hardly be avoided. The late Professor Pillans preferred the term "didactics." If the universities were once induced to undertake the work, the establishment of an honor examination on this subject would require to be supplemented by the appointment of a lecturer or professor, qualified not only by his theoretical and practical knowledge and his power of exposition, but also by actual acquaintance with some of the best methods in use both in English and foreign schools. It would also be necessary for the professor and the university to be placed in such relations to the heads of some of the best public schools of different types as might insure for all the students ample opportunities of practice under observation. Diplomas granted by the universities on such conditions would soon come to be highly valued, and would go far to create a strong public opinion in favor of training as an almost indispensable element in the qualification of teachers in all ranks.

Some useful experiments have been tried in one or two public schools and in the Ladies' College, Cheltenham, with a view to train "student teachers," while on probation, in the methods of conducting school work, and especially in giving class lessons. What is called in the State of Michigan and in other parts of the American Union the "cadet system" is planned on a similar principle. Both methods may well deserve fuller examination than they have yet received; but it will probably be found that neither can be regarded as more than a temporary and imperfect expedient, and that both fall far short of providing the instruction in the art and principles of teaching which is required to make a skilled practitioner in that art.

#### TRAINING OF TEACHERS OF SECONDARY SCHOOLS IN FRANCE.

[By Mr. Herbert Ward, B. A., one of H. M. inspectors of schools, etc.<sup>1</sup>]

"The best feature of these (the French public secondary) schools seems to be their thoroughly trained and tested staff of professors." So wrote Mr. Matthew Arnold in 1868 after an account of the qualifications required in teachers of French secondary schools, and a glowing description of the higher normal school at Paris. It is here proposed to discuss this dictum and to examine its accuracy, especially in view of the more recent development of the French school system.

What is to be understood by the "thorough training" of a teacher? As such training admittedly does not exist in England for teachers in secondary schools, even the necessity of it being denied by a great many, we are driven to seek an analogy from the elementary schools.

In elementary education in England and France alike it means two things. A trained teacher is one who, in the first place, has been fully instructed in the matters which he will have to teach. The certificate of the education department, granted to training-college students upon examination, and also to acting teachers,

<sup>1</sup> From vol. 5 of the Report of the Royal (English) Commission on Secondary Education.



is a guarantee that the elementary teacher knows his English, arithmetic, geography, and what not; and the South Kensington certificates testify similarly to his possession of some knowledge of the branches of science and of that in which he has been examined. But "a trained teacher" connotes something more. The phrase implies that besides instruction in the matter of his teaching he has also received lessons in the method. In the English system of elementary education at the training colleges, and to a varying extent during the period of apprenticeship to pupil-teachers, regular courses of lessons are given in school method and school management. The same is true of French normal schools. School method and management embrace not only the details of the teaching of particular subjects, but also psychology and logic as applied to education and hints on the administration of schools. Lessons before elementary classes for the purpose of criticism are constantly given or heard by teachers under training, and model lessons are shown them by the master of method. Moreover, they have practice in teaching in schools during the apprenticeship under the eye of a head master, during the training college course, under the direct and constant supervision of the method master.

Of these two sections of the training of teachers, neither exists for secondary schools in England. There is no express provision for cultivation on the intellectual side for the man who would teach in a secondary school, still less is there any instruction in the science and art of imparting knowledge on the theory of education. It will be found that in France there is a tolerably complete organization to secure the former—the intellectual training and testing of the future teacher—and so far Mr. Arnold's saying is fully justified. But before it can be accepted as covering the second kind of training, in method, very considerable qualifications will have to be introduced. It is not within the scope of this memorandum to discuss the necessity, or otherwise, of the professional training, so to speak, of the teacher in secondary schools, but simply, in view of those who demand that there shall be some, to point out the state of things in France.

It is desirable, by way of preliminary, to notice two or three contrasts and distinctions. In the first place, secondary schools in France are divided into two well-marked classes, lycées and collèges. The leading difference between the two is one of administration, for the lycées draw upon state funds, while the collèges are supported upon municipal or communal funds. But besides this there is an important difference in prestige, a difference accentuated by governmental regulations as to the staffing, for the conditions of appointment of masters in communal collèges are not so severe as those which govern the appointment of masters in lycées. There is a special scheme of salaries for professeurs de collège distinct from that of the professeurs de lycée. In general, the staff of a college will not be so distinguished as that of a lycée, and presumably the instruction will not be so good. Any generalization, then, concerning professors of lycées will not necessarily be true of professors of communal collèges, who until recently could not claim the title of professor. It is upon the former that the attention of foreign inquirers has usually been directed. It was of these professors that Mr. Matthew Arnold was chiefly thinking when he spoke of a "thoroughly trained and tested staff of professors." But, having in view the number of communal collèges, we can not overlook the large body of teachers in them without grave danger of misconception.

Another important distinction, which illustrates also a curious contrast to English methods, exists in the staff of all public secondary schools, whether they are state or communal schools. Most of them are on the boarding system. In England this would entail increased work upon resident masters in the way of "house duty." In France, on the contrary, the teacher has not (except accidentally in small communal collèges) any house duty whatever. When his teaching work is over he is completely free, and all supervision, whether of private study, preparation, or recreation, is undertaken by a body of ushers, who are called variously *maîtres d'étude* or *maîtres répétiteurs*. The ushers, of whom there are some even on the staff of those schools which receive only day boys, are usually men who are reading for a higher degree or

certificate than the one they must possess. They do no teaching work, except in the case of the best qualified, who give help in preparation, and except, upon emergency, when they may be called upon to fill a temporary vacancy. But from their number are recruited to a very considerable extent the masters in the communal colleges and smaller provincial lycées. They, too, therefore, although not, while in the exercise of their proper functions, teachers, must be taken into account in any discussion upon teachers in French secondary schools. A third distinction to be noticed is that between the elementary division of a secondary school and the two higher divisions. While the qualifications for masterships in the higher divisions almost necessarily presuppose an education in a secondary school, certain specially qualified primary schoolmasters, who have very rarely passed through a secondary school, are admitted to teach in the classes of the elementary division. There is also a special certificate qualifying the holder to teach such classes in the lycées, a certificate well within the reach of a primary schoolmaster. The elementary division, it should be said, prepares boys to begin a secondary education proper in the division de grammaire, and its course hardly differs from that of the primary school, except in the important addition of a modern language. But the division is so integral a part of most schools, except the highest Parisian lycées, that its professors should be included in our survey. A still lower division, which may be found in some schools, is the division of primary classes, but for practical purposes there is no need to consider it apart from the elementary division.

These distinctions being clear, the intellectual training of teachers in French secondary schools may now come under discussion. I deal at present with the classical lycées and colleges for boys—the most numerous and oldest of public secondary schools—leaving for subsequent treatment the “modern” departments and schools for boys and the girls’ schools. Admission to the various functions is an affair of degrees and certificates, and all masters (except the *répétiteurs*) are appointed by the minister of public instruction, who selects his candidate from a list of persons competent for the post which is vacant.

There are two main degrees which concern the future professor, the degree of bachelor (*bachelier*) and that of licentiate (*licencié*), which Mr. Arnold roughly compares to the English bachelor and master of arts, respectively. The degree of bachelor admits its possessor to the functions of *répétiteur* or *préparateur* (a higher kind of usher, whose work is sufficiently indicated by the name) in a college, and also, after a short probationary period, to the same post in a lycée. It further enables a man to take provisional charge of a class in the higher divisions of a college, though not the “titular professor” of the class. The licentiate may be titular professor in a college, but only provisionally in charge of a class in a lycée. In order to be full or titular professor in a lycée, the licentiate must have competed for and won the title of “*agrégé*,” a peculiar scholastic distinction, an explanation of which is for the present postponed. The difference between a full or titular professor (*professeur titulaire*) and the provisional professor (*chargé de cours*) is not only one of prestige; the titular professor is a sort of form master acknowledged, and his tenure of office is secure, whereas the *chargé de cours* may be removed to make way for one qualified to take the permanent post. And also, as salaries in French secondary schools vary according to qualification and experience, there may be an important difference in the stipends of a titular and a merely provisional professor. In spite of the insecurity, there are often more provisional than titular professors in the remoter colleges and lycées where the fully qualified teacher can not be induced to settle. In the elementary division the special certificate of fitness alluded to before admits to the best posts, those in the lycées; but to be provisionally in charge of elementary classes in lycées and to be full professor in colleges the bachelor’s degree is sufficient, or the certificate of a primary head master. For primary classes, primary schoolmasters and schoolmistresses are usually drafted in from their schools.

The possession of diplomas and certificates, upon which the French so emphatically insist, is at any rate some guaranty of intellectual capacity in the teacher, as Mr.

Arnold pointed out. The degree of intelligence involved in the diplomas needs some further elucidation. Leaving aside the certificates of teachers of elementary classes, which imply a good higher grade elementary education, with the addition of a foreign language in some cases, we may broadly say that the first condition of entering the profession of teaching in secondary schools is the possession of the bachelor's degree. How far, then, does this degree correspond to what is commonly required, though not, as in France, legally necessary, in a secondary school-teacher in England, a university pass degree? The examination consists of two parts, both founded on the work done in the upper division of a secondary school. The first part, which embraces the programme of the upper division as far as and including that of the top form but one (*classe de rhétorique*) is compulsory on all candidates. It consists chiefly in Latin, Greek, French, history, and one modern language. It appears to me to correspond roughly to the intermediate examination in arts at the London University, or to the matriculation examination of those colleges at Oxford and Cambridge where some strictness is exercised. In the second part, which covers the work done in the highest form (*classe de philosophie*), there is, to a certain extent, liberty of choice. The subject being philosophy and its history, mathematics, physics, and chemistry, the candidate can emphasize, which he will by choosing to be examined on paper in one and orally in the rest. As the whole examination is well within the reach of an average boy of 18 in the top form, it should be below rather than above such examinations as the London and Victoria universities' pass B. A. and the M. A. of the Scotch universities. It would seem, then, that the minimum qualification necessary for the teacher in a French secondary school is nearly the same as in practice is required in England. But while in England a pass degree can be won and is frequently won by men who have had no secondary school education, for example, an elementary schoolmaster, it would be more difficult to gain a French degree by mere private study. Hence it is that few primary schoolmasters in France enter the secondary schools by this gate, while, on the contrary, in England the number is not inconsiderable.

It is to be remarked that there is nothing in the regulations to prevent a bachelor from teaching the highest forms in a communal college, although, according to the distinction already explained, he would not be recognized as "filling the chair," but only as a provisional substitute for a titular professor. But, whatever be legally possible in practice, the teacher in a communal college must possess the degree of licentiate. That this degree and not that of the bachelor is the real teacher's diploma is abundantly shown in the official "programmes" and instructions. In the preamble to the regulations for the licentiate's examination we read: "The knowledge required of the candidate is that which is obtained in secondary education, with the difference that at the baccalauréat the examining body is questioning a pupil, at the licentiate it has before it a future professor destined shortly to take charge of a class." Accordingly the syllabus is drawn up to meet the intellectual requirements of the intending teacher. "He must show that he knows everything that is necessary to conduct the lessons with which he will be intrusted as a master in a secondary school." "The establishment of a licentiate's degree in history and geography is intended to furnish our colleges and even in certain cases our lycées with professors of geography and history who have received, along with a genuine literary culture, a training in history and geography." The inferior degree involved an examination on the whole classical curriculum. In the higher degree of licentiate there is specialization on the lines of the specialization of functions in a secondary school. Thus, there are "licenses" on the letters side in philosophy, in letters, in history and geography, and one also with special mention of modern languages; on the science side there are subdivisions parallel to the subdivisions of the work in science and mathematics in the school. In each case what is required is a more extended acquaintance with one of the departments of knowledge embraced in the syllabus for the baccalauréat. It is not necessary to give the programmes in full. My impression is that the licentiate's examination in letters (i. e., pure classics, with the important addition of



French classics) corresponds broadly with the London University B. A. examination (honors in classics) or the honor school of classical moderations at Oxford. It will be seen that work for this degree is university work rather than school work. It is ordinarily taken by those who are in attendance on courses at university centers. But attendance is habitually excused in the pupils of the higher normal school, and exemption is readily obtained by those who are actually engaged in teaching or supervising while reading for their degree.

I have dealt so far with the qualifications of teachers in communal colleges chiefly; there remains the qualification of the full professor in lycée. The titular professor in a lycée must be "agrégé." This coveted title is not a degree, because it is given after competition and not after public examination. The number of "agrégés" in a particular year depends upon the needs of the lycées, so far as those needs can be foreseen. Thus, though the distinction is enthusiastically termed "the crowning and final consecration of the studies of our young professors, the "agrégation" by its very nature can not be reached by the great body of teachers in French secondary schools. There is no precise English equivalent to the "agrégation." By some it is compared with the fellowship; but while there may be, approximately, the same severity in the tests, there are few other points in common. A teacher may be "agrégé" in any of eight orders—philosophy, letters (higher), history and geography, grammar (lower letters), modern languages, mathematical sciences, physical sciences, and natural sciences. There is no special syllabus issued. In his own subject the candidate is expected to display not only thorough knowledge but even erudition. A professeur agrégé is regarded so much as an expert in his own department that under certain circumstances he may be intrusted with supplementary courses at a university center. For the present purpose there is no need to do more than emphasize the necessarily restricted number of those who are "provided with the title of agrégé," and to insist upon the extreme severity of the test.

It will be seen from the foregoing that so far as guaranties of intellectual capacity are concerned the French system of choosing their secondary schoolmasters leaves little to be desired. To supervise in schools of both first and second rank, and on occasion to teach in those of second rank, the degree of bachelor is required, a certificate which testifies to a sound secondary education. Usually before teaching in communal colleges, necessarily before teaching in lycées, a "university degree," as it would be called in England, the degree of licentiate, is demanded; and this is a warrant of special proficiency in some one branch of letters or science. The picked men of the profession, who have charge of the classes in schools of the first rank, must possess the teacher's diploma of "agrégation."

We may now turn to the "training" of the teacher in the narrower sense of professional instruction in method. From certain public utterances of English educationalists it appears to be expected that in the French system there is much that is worth imitating.

In the preparation for the bachelor's degree there is absolutely no professional instruction. Indeed, it is not to be looked for, seeing that the baccalauréat merely puts an appropriate finish on a course of education in a secondary school and does not contemplate any specialization of function whatever. Moreover, for teachers it is really only preliminary to the licentiat. No doubt a large number, on the staff of colleges especially, have nothing more than this leaving certificate, but in great part they are répétiteurs, doing very little teaching work and themselves studying for some more valuable diploma.

It is more important to observe that in the preparation for the teacher's degree, that of licentiate, there is practically no professional instruction. The theory of teaching has no place in the syllabus and the question of method does not seem to be raised at all in the official programmes. The examination is purely a test of knowledge of subjects and not of educational theory or professional skill. There is one important reservation to be made, however, in view of a comparatively recent



development. This is the institution of university bursarships (*bourses de faculté*) with the avowed end of enabling more of those who devote themselves to secondary teaching to obtain the grades which will qualify them for higher posts. "The establishment of bursaries is specifically intended to supply men who have the degree of licentiate to those colleges which have none so qualified. \* \* \* The State wishes to aid especially those young people who, while possessing an inclination toward teaching, may be prevented from want of sufficient means from attending the lectures in the faculties." (Quotation from circular of September 8, 1879.) The bursarships are tenable for one year at a university center and are given usually upon examination. The number is restricted according to the probable requirements of the staffing of secondary schools. What is important from the point of view of the training of teachers is that special classes are held in the various faculties to prepare men for the licentiate; and to them are admitted not only the bursars, but also such *répétiteurs*, *maîtres d'étude*, *maîtres auxiliaires*, and *auditeurs libres* as may be free at the hours when the lectures are delivered. In a circular dated October 25, 1888, the success of the bursaries is stated with some natural satisfaction; they are now recognized as almost a "succursale" or branch of the higher normal school. In the same circular I find a full acknowledgment of the necessity of instructing teachers in secondary schools in the science of teaching. But nothing follows more than general recommendations. The university professors are asked to lecture upon the pedagogic aspect of their subjects and to talk familiarly with their pupils on questions connected with their future work. How far this general instruction leads the university professor to give hints on teaching his own subject will depend very largely on the amount of time at his disposal and on the idiosyncrasy of the professor. Moreover, the students are to visit lycées during school hours, when possible and where, in order to observe the methods and class management of the eminent professors who will be willing to admit them. Here again we have rather a counsel of perfection than a rule that can not be infringed. No hard-and-fast regulation has been made since 1888 for "boursiers de licence," and I understand that visits of observation or service in school with them is a matter of option. The possibility of such visits will naturally vary in the different centers according to the zeal of the authorities and the readiness of the professors in lycées to admit aspirants into their classes. In Paris, where the organization of professional training is more complete than elsewhere, though it is still in a rudimentary state, bursars reading for the degree of licentiate are not regularly sent into schools for practice and observation. It is highly improbable that provincial centers will be before Paris in this matter. There are courses of lectures on education at some university centers, at Paris, Lyons, Bordeaux, and Toulouse. In Paris they are given by M. Marion, the professor of the science of education; at the other places they are delivered as supplementary courses to the ordinary series on philosophy. M. Marion's lectures are partly public, when they deal rather with the broad questions of education in general likely to interest others besides teachers, and partly restricted to members, actual and prospective, of the teaching profession. Of the latter, one course is open to the boursiers de licence, if they like to attend. It is frequented by a mixed auditory consisting of teachers and aspirants of almost all grades, a very large proportion being primary masters and mistresses. There is no formal series of addresses, but a discussion of various educational problems treated now by the professor and now by one of the class. By the very nature of the case, questions connected with secondary teaching in colleges and lycées, especially detailed questions of method, can find very little place in the discussion. For boursiers de licence, then, destined probably to teach in colleges, there is provided, even at Paris, only such limited pedagogic instruction as may be picked up from general lectures on education and teaching and from possible visits to schools. It is but fair to add that many of these bursars, when they have got their degree, proceed with renewed bursaries to study for the *agrégation*, the pedagogic aspect of which may now come under treatment.

The professional training and testing, so much to seek in the preparation for the two degrees of bachelor and licentiate, appears in the *agrégation*. "The *agrégation*," we are authoritatively told, "is to furnish to the young professors an opportunity of showing their capacities in the way of erudition, as well as their fitness for teaching. \* \* \* It is of importance, then, to preserve its professional character." The examination for the title of *agrégé* comprises two distinct portions. The first, called the preliminary test, consists of written compositions of a very advanced order, but very rarely concerned with educational questions. The second, or final test, includes *viva voce* explanations of passages of authors, lessons, and practical exhibitions of teaching skill. As this is the nearest approach, so far, to a definite professional examination, details will not be out of place. In the *agrégation de lettres*, for example, there are three sections of the final test:

(1) The translation and explanation of passages from authors in Latin and Greek and comments upon a French text. The authors chosen are indicated a year beforehand, and hence no preparation is allowed for this test at the examination. "The candidates must offer all the remarks upon each text that explanation in class would call for."

(2) Explanation of a passage of Greek or Latin taken from the programme of secondary schools, with a literary and philological commentary. Twenty-four hours are allowed for preparation.

(3) A lesson of an hour on some subject taken from classical literature, the subject to be selected by lot from the syllabus of secondary schools. Twenty-four hours for preparation are allowed in this case also.

Similarly, in the *agrégation des sciences mathématiques* the final tests are:

(1) A lesson on "elementary mathematics," after three hours of preparation, without access to books or notes.

(2) A lesson on "special mathematics," after four hours of preparation under the same conditions.

Such tests as the foregoing at least imply that the candidates have devoted some personal reflection to the question of teaching. They further constitute a more or less definite acknowledgment of the necessity of pedagogic training for the secondary schoolmaster; but no light is shed on what means are taken to secure it. As a matter of fact, candidates for the *agrégation* are prepared variously, by private study, by one of the faculties where he is a boursier, and lastly by the higher normal school. As to those in the first category, who are probably employed in school work, their practical experience will serve in place of formal instruction. For the bursars, who enjoy their "*bénéfices*" on almost the same terms as the bursars for the *licencié*, there are the same facilities as these others possess—pedagogic instruction, if the professor sees fit to mingle with his lectures counsels on the methods of teaching (and many do this toward the end of their course), for some a short period of service in a secondary school, and, in those centers where provision is made, the liberty to attend special lectures on education. In Paris, boursiers d'*agrégation* in their first year are sent into lycées to watch and help, according to circumstances, the professors of the subjects they are studying. M. Marion, moreover, devotes a special series of lectures of an intimate character to candidates for *agrégation*, lectures in which theory is checked by the practice and observation just obtained in the schools. It used to be a condition of entering for the *agrégation* that a candidate, unless he came from the higher normal school, must have served five years in a public secondary in some capacity, and it was held that such a probation was enough to afford all the training in professional aptitude that was needed. In the most recent programme, however, I can find no mention of the condition, and conclude that, with the extension of the bourses de faculté, it has been suppressed.

It is on the higher normal school, *l'école normale supérieure*, that the attention of educational reformers in England has been chiefly fixed. As an impression seems to be abroad that the higher normal school itself is an efficient instrument for supplying and training all the secondary schoolmasters required in France, it is worth

while to describe the institution more in detail. To quote from an official document: "The higher normal school, established at Paris, is immediately dependent on the ministry of public instruction. It is intended to train teachers for the various sections of classical secondary education and of higher education in the establishments of the State. It comprises two main divisions, of letters and of sciences. The school takes none but boarders. Tuition and keep are free. Admission to the higher normal school is given after a competition which takes place every year. The number of places is fixed by the minister in accordance with the requirements of education." All pupils must bring a stamped document, containing a written undertaking to serve for ten years in some department of public instruction. The ordinary course of study lasts three years. The pupil must be a bachelor when he enters, and at the end of his first year he must gain the degree of licentiate. The second year in the section of letters is usually considered to be devoted to the disinterested pursuit of the higher branches of the study he has taken up; in the section of sciences, to the preparation for the licencié in another branch. In the third year all prepare more definitely for the agrégation, though, as there is issued no full and formal plan d'études for this examination, preparation for it must consist in profound research rather than in cramming. There is accommodation for over 100 pupils, and every year from thirty to forty are available for drafting into the schools. The intercourse in the classes seems to be of the most intimate description. The pupils are called upon to give lessons, especially in their third year, when the time of their entrance into the profession draws near. They are also to spend a fortnight in some lycée before leaving, a term considerably shortened from the six weeks that were originally required. The high opinion which the French have of this school—an opinion justly entertained, for from it have proceeded some of the most prominent savants of the century—must not prevent us from examining how far it comes up to the ideal of a training college for secondary teachers.

In the first place, the pupils of the higher normal school form an aristocracy among French teachers. Not every one can win the coveted dignity of agrégé, and still fewer can pass through the higher normal school. The thirty or forty who obtain admission each year are the pick of the lycées. As the numbers are so small, the normaliens can not supply all the places vacant in all colleges and lycées in France; and, indeed, they usually consider it a misfortune, if not an indignity, if they are not placed immediately on leaving in at any rate some important provincial lycée. Every lycée, it seems, counts among its teachers some one or two agrégés at least, and no doubt many of them are pupils of the higher normal school. But these elect persons gravitate to Paris after a period of service in the provinces, and staff very completely the numerous lycées in the capital and the immediate neighborhood. Much indirect benefit, no doubt, accrues to the schools in which they are placed by the dispersion of even so few highly trained young men through France; but the higher normal school can not be considered, as once it could, as the main recruiting ground of the secondary school teachers in France.

In the second place, the school does not pretend to be a school of pedagogy. There is apparently no study of educational methods as such, no investigation into the history of education, and no stress laid upon psychology in its bearing upon education. A priori, one would expect that the highest institute for training the best equipped teachers would form a school of educational thought and research to which the busy schoolmaster would refer for inspiration and guidance. But the object of the school is undisguisedly erudition and personal cultivation. "*Travailler pour soi, voilà l'essentiel à l'école.*" It is hardly concealed in public documents that admission to it is, as it were, an endowment of research, and panegyrists speak with enthusiasm of the possibility of working there for the pure love of study, untainted by any baser motive. The idea of applying the methods of professional training in vogue in the primary normal colleges to secondary schoolmasters, even in a modified form, is yet of too recent a growth in France to have affected the higher normal school. It is held that, given extensive learning and a complete mastery of the subject you



have to teach, the ability to teach it will follow, and M. Marion himself, who can not be accused of underrating the value of pedagogic instruction, is of opinion that to these "*jeunes gens d'élite*" a few hints and counsels are all that is needed. It can hardly be considered that the service in school of a fortnight and the giving of lessons occasionally in the third year constitute any serious pedagogic training, when there is no "master of method" to superintend the lessons and no regular formal lectures in psychology and the theory of teaching are delivered. The courses of the professor of the science of education, even so far as they are followed by the pupils of the higher normal school, are of too recent a foundation, and attendance is too much a voluntary matter for them to be said adequately to supply the deficit.

In the whole, then, the higher normal school, though a unique institution and admirably adapted for the purpose, hardly corresponds to our preconceived ideas of a normal school, ideas formed from an experience of normal schools for primary schoolmasters. It is, indeed, a *pépinière* or nursery, as it is so often called, where are reared professors for the greater lycées; and but as such, it trains and educates only the favored few. Some friendly critics accuse it of no longer completely fulfilling the functions for which it was originally intended, of supplying masters for schools in the secondary instruction. A certain proportion of its pupils have constantly been drafted into the higher university education. A small number, some half dozen or so, are regularly kept on as assistants and demonstrators for two or even more years, in order to enable them to prepare for their doctorate, and then pass into the chair of faculties. Others, again, go to the higher special schools, such as those of Rome and Athens, while some, though not doctors, are employed as assistant or supplementary professors in faculties. Even many of the bulk who do actually teach for a time in the lycées ultimately recruit the ranks of university professors. But as the object of the school is officially announced to embrace the supply of professors for the higher establishment of the State as well as the secondary schools, the criticism that the school is being diverted from its proper purpose does not seem to have very much value.

The masters of the elementary and primary divisions of a secondary school may now be considered. As above stated, the instruction in the divisions resembles primary instruction, with the important exception that a modern language is begun. The classes in the primary classes are generally under the charge of regularly trained primary-school masters and mistresses drafted for this purpose into secondary education. It may not be out of place to remark that their training involves a three years' residence in a normal school, with regular lessons in pedagogy, a regular system of service in a practicing school. For elementary classes in communal colleges the certificates of a primary head master are required, i. e., the higher *brevet* won in the ordinary course of things at the end of the third year of the training college course, and the "*certificat d'aptitude pédagogique*." It would seem that the regulations for the staffing of the lower division have not yet reached their final form. A comparatively new certificate, that of "fitness for teaching elementary classes," is demanded of those who wish to be full professors of elementary classes in lycées. It is at this certificate that *maîtres d'étude* with no ambition for a higher degree than that of bachelor and acting professor of lower classes chiefly aim. It is through it also that capable men pass from primary into secondary instruction, though there is very small hope of their rising above the elementary classes. Whether it be that the programme was inspired by those who look upon pedagogic instruction as important, as its recent origin suggests, or its framers had the theory that the less cultivated a master the more is *pédagogie* required; at any rate the syllabus contains sufficient of the professional element to satisfy the most exacting. The written work includes compositions in the form of lessons in French, history and geography, sciences and mathematics. The oral work comprises a *viva voce* explanation of a piece of French, a lesson of twenty minutes on composition and the formation of sentences at the blackboard, a lesson of a quarter of an hour on geography, and another on history, also at the blackboard. Similar lessons on sciences and mathe-



matics, and finally a personal examination on "the elementary principles of pedagogy." A quotation from the report of the board of examiners in 1892 will be useful in view of the last oral test. "The questions are chosen among those which should be familiar to a good professor of elementary classes; they refer to the theory of education as well as to the methods of teaching; they bear upon the interpretation of the syllabus and the government of a class. We choose them in advance, and the candidates draw them by lot. When] the questions have been treated in due form, they are followed by observations from the examining board, which corrects mistakes and clears up obscure points." There is no provision for preparing candidates for the certificate; such preparation must all be private. The fact that not much more than 10 per cent of the candidates are passed indicates that the certificate is to be made as valuable as possible. The benevolently earnest anxiety that the professor shall know how to teach his class contrasts strongly with the almost entire absence of any such precaution in the case of candidates for the *licenciat* and its comparative neglect even in the *agrégation*.

One other certificate calls for a passing notice in a study of the training of French teachers. As the *licenciat* is a necessary preliminary to the *agrégations* of letters and sciences, a "certificate of fitness for teaching modern languages" was established to stand in the same relation to the *agrégation* of modern languages. The possessor of the certificate may take provisional charge of a class in a *lycée* and full charge in a communal college. The examination does not necessitate a knowledge of Latin and Greek, and for this reason is often undergone by modern language tutors in primary normal schools. Among the conditions occur some which are of interest from a pedagogic point of view. A lesson is to be given in grammar in the modern language chosen. One of the written tests is a composition in French on some subject connected with the "special pedagogy of modern languages." I give a few examples of the questions and subjects. "What system of declension (in German) have you adopted in your classes, and why?" "Pronunciation and accent in a modern language class." "The teaching of modern languages by the ear as opposed to teaching by the eye." "Expound in a general manner the method which seems to you the best for teaching the vocabulary in Spanish." Although there is no training school for modern languages, this emphasis laid upon the theory of teaching them can not fail, by causing candidates to reflect on their methods and to collect information, to increase the educational efficiency of the classes.

Hitherto I have concerned myself with the ordinary or classical *lycées* and colleges. With appropriate alterations all that has been said is true of "modern" schools and the "modern sides" of classical schools—"special secondary instruction," as it was until recently called. There is a *baccalauréat* at the end of the full course at one of these schools of relatively the same difficulty as the classical degree. There has been also, besides the degree of *licentiate* in sciences, a special "certificate of fitness for teaching in modern schools," and a special order of *agrégation*. There was even a separate normal school (*l'école de cluny*) to train professors for the *enseignement spécial*, and a certificate for those who had passed through it. The school was suppressed a few years ago, and now from 1894 onward the peculiar certificate and *agrégation* are also abolished. These measures do not constitute a neglect of the "modern" education, but rather an elevation of it; for the substitution of the scientific degrees and diplomas of the professors of classical *lycées* will be a better guaranty that modern schools shall have a staff of cultured men than a general examination in modern subjects, such as qualified for the old certificate of fitness and the old *agrégation*.

*Lycées* for girls require to be considered apart. They are strongly differentiated from *lycées* for boys by the three facts that they were instituted so recently as 1880, that there was no staff of teachers already trained, and that in the curriculum Latin and Greek are omitted. Among other results following from these differences, the girls' schools and teachers need much more direction and guidance, as there is no tradition of teaching such as exists in boys' schools. In outline, the conditions of admis-

sion to the professorat are the same as for men. The leaving certificate of a girls' secondary school is the equivalent for the bachelor's degree, and it is noteworthy that instead of it a certificate from the primary normal school is accepted. Instead of the degree of licentiate, which involves a knowledge of Latin and Greek, there is substituted a "certificate of fitness for the teaching of girls." The examination for it includes a lesson on history of half an hour's duration, to be given after a preparation of two hours; but this is the only pedagogic test. The certificate admits the holder to be chargée de cours only; to be full professor she must be agrégée. In the agrégation, which is divided into two parts, for the order of letters and for the order of sciences, respectively, professional tests have a larger place than in the corresponding competition for men. Thus, in the agrégation of letters, besides an oral explanation of a French text, there are three lessons—on history, on geography (with a sketch on the blackboard), and on morals. Moreover, a devoir, or pupil's exercise in literature or grammar, is to be corrected orally before the board of examiners. Occasionally in the written work essays are set on educational subjects.

As the recruiting of the professorate of girls' schools is still, so to speak, nursing, in the reports issued by the examining boards advice is freely offered to the aspirante on the method of giving the lessons, and admirable counsels are bestowed with the avowed object of "coaching" those who shall appear as candidates in the future. Most of the agrégées come from the higher normal school for women at Sèvres. This establishment, which was created in imitation of the school for men, differs from the latter in many respects. As the lycées for girls are not as yet by any means so numerous as those for boys, the training school is able to supply professors for vacancies to a far greater extent than in the higher normal school at Paris. Again, although the agrégation is by no means to be despised, it is not so hard, absolutely, as the agrégations for men, and as there are only the two orders of letters and science, the specialization of the men, and consequently the profounder study of a more limited range of subjects is naturally out of the question. Thus the school of Sèvres is not liable to many of the criticisms which may be fairly leveled at the higher normal school at Paris. I can not discover that more attention is paid to educational methods and theory than at the other school; the facilities for attending the lectures of the Sorbonne on education are certainly far less. In the matters of conditions of admission, length of residence, terms of residence, and the engagement to serve in some department of public education the normal school for men is closely imitated. It is worthy of remark that while the men undertake to serve ten years simply, the women have an alternative form of engagement to complete the term of ten years originally promised in a primary training college. Many primary schoolmistresses do, as a matter of fact, pass into secondary education by this and other means. The higher normal school at Sèvres and the higher normal school at Foutenay-aux-Roses for training mistresses in primary normal colleges are often associated together. There is no essential difference in their respective programmes. But to compare the higher normal school at Paris with the normal school of St. Cloud for training tutors for primary normal colleges is out of the question, so radically different is men's secondary education from men's primary education. There is in the above indications sufficient evidence that on the side of the girls a much closer connection exists between primary and secondary education.

There is one more point which deserves emphasis. It might seem from the description of the professional training of the teachers in French secondary schools that after all it is confined chiefly to masters of elementary classes and women teachers, and even then it is restricted to private work tested by an examination; that in other cases it is casual and accidental, and that the great mass of teachers apart from the pupils of the normal school must be left without guidance except such as is supplied by their native intelligence. But to think so would be to lose sight of an important characteristic of French education in general, the abundance and fullness of programmes, and the extreme care with which they are drawn up. Whatever evils may be involved in strict organization, and however mechanical and arbi-

trary some of the arrangements may seem, they have the advantage that they help the young professor in the outlines of his work and prevent him from wandering into indefiniteness. This is of more value because the head masters of lycées and communal colleges are not usually counted on the teaching staff; they have often done no teaching, and so can not assist a novice as an English head master who has probably mapped out the course of work for himself can assist a beginner. I do not discover that the programmes prescribe too minutely what is to be done by the teacher, but to the untrained learner a little guidance is useful; and the directions of the programmes, coupled with the consultations in the "masters' meetings," recently made a general custom, will save many an error. Perhaps also the fact that the syllabus is uniform for all public schools throughout France, fatal as it may seem to all individual and local developments unless there be a liberal interpretation of the regulations, will help rather than bewilder a man who has himself been educated in a school similar to that in which he teaches and on lines very similar to those on which his pupils are being taught. In many cases not only is the syllabus carefully drawn up, but advice is given how certain lessons should be conducted. There is constant emphasis, for example, on the necessity of avoiding merely verbal teaching in science and of using visible objects and specimens. Excursions to illustrate the courses of geology and botany are recommended. In arithmetic the exact point at which theoretical teaching should be introduced alongside of the practical teaching is carefully indicated. In the syllabus for girls' schools a whole page is devoted to directions for teaching to read aloud. I should not omit to mention an admirable volume of instructions and counsels which was issued to all masters upon the publication of the revised syllabus of 1890. The book is a finely written treatise on the outlines of teaching methods, and it deals with every department of the work in a secondary school. What lends an additional value to all these instructions and programmes is that they are compiled by an educational council of experts, and not by a "department" of administrative officials. The council represents every educational interest and every grade of teachers in France. The minister of public instruction issues his decrees in conformity with the council's advice. The constitution of this body lends dignity to the teachers who are represented, and they have the satisfaction of knowing that their work is mapped out for them by men on whose wisdom and experience they can rely.

The military question has had considerable influence on the supply of primary schoolmasters. Before 1889 they were exempt from military service, and when the exemption was removed the necessary motive to decide many who wavered before entering on a career so little remunerative ceased to operate, and the numbers of candidates for the primary normal schools fell considerably. The same effect has not followed in secondary education. The degrees and diplomas which bar the entrance to the higher grades of the teaching profession acted before 1889 as sufficient impediments to any who desired to take up the work merely in order to avoid the year under the flag. Secondary teachers have been rare on exactly the same level as members of the other profession in regard to military service; under ordinary circumstances they must devote one year to military training.

A few remarks may be made by way of summary and conclusion. As compared with the state of things in England, the existence of a system of supplying teachers to secondary schools calls for comment. The care with which the terms of admission to the profession are drawn up, with their safeguards and checks and guaranties, can not but excite our admiration; for to have the methods of entrance so well organized is no small security for efficiency in education. If a man enters with his eyes open, knowing clearly the conditions under which he will serve and be promoted, he is much more likely to prepare himself for the work and to equip himself with everything that can make it successful. The deliberate choice of teaching as a career which is almost demanded by the French system must produce the most beneficial effect upon education; while if men drift into the profession or take it up



until something better offers, no enthusiasm and scarcely honest and thorough work can be expected.

There is little to find fault with in the intellectual training of the future professor. The first requirement for a higher teacher is a sound secondary education and for a lower teacher a superior primary education. The distinguishing feature of both, as compared with their English equivalent, is the prominence given to the mother tongue and its literature. The second requirement in all but the lower teachers is some specialization. As the functions in all but the smallest colleges are themselves specialized, the teachers must be prepared accordingly. Hence the subdivisions of the licentiate's degree, and the eight orders of agrégation. In all departments the teacher must have thoroughly mastered the subject he is to teach, and even, if possible, be an expert in it. One result of the specialization, as Mr. Arnold notices, is that it seldom happens that a teacher has to take a subject with which he is not familiar, and this must minimize the amount of inferior teaching. Much as we may admire the intellectual training of the secondary teacher in France, it must be confessed that the professional training is disappointingly ill-organized. That it is inadequate is conceded by those who are the most earnestly seeking to remedy its defects. There is indeed some testing of skill in teaching by examination; but little provision is made that the candidate shall have been properly instructed. And as to the testing itself, there is the strange paradox that it takes place at the top and bottom of the hierarchy of teachers but not between. The distinguished agrégés are tested and so are the humble elementary masters, but for the average licentiate—that is, for the average professor in communal colleges and provincial lycées—there is not even a test for which he might prepare by personal reflection or investigation. In the primary system all masters and mistresses must pass through the normal school. In the secondary system this is neither necessary nor possible. Comparatively few enjoy the privileges of university preparation for the agrégation, and fewer still can enter the normal school. And even in the normal school itself there is very little professional training. The ardor of the students is directed toward purely intellectual pursuits. We do not, perhaps, expect that the normalien should have a dreary apprenticeship, but we do look for more attention to educational methods at so renowned a training center. The truth is that, coupled with a genuine conviction that the more cultivated a teacher is the less he needs of formal instruction in method, there is a prejudice against *pédagogie* as applied to secondary schools. Pedagogic instruction is well for the less cultivated primary schoolmaster or lower-form master, but it is beneath the dignity of the *professeur de lycée ou de collège*. The prejudice has led to the failure of some attempts to introduce lectures on education at university centers. There is now a distinct tendency in the opposite direction. Some of those in high places, like M. Compayré, the rector of the Academy of Portiers, are known to be advocates of a science of education and the university courses that have been started, though attendance at them is compulsory upon none, have justified their existence by the considerable auditory they have attracted. It seems likely that the French love of organization will set to work here too, and that before long it may be true, not only of picked teachers, but of the professor as a whole, that they are "thoroughly trained and tested."



# MEMORANDUM UPON THE REGISTRATION AND TRAINING OF TEACHERS IN SECONDARY SCHOOLS IN THE STATES OF THE GERMAN EMPIRE.

[By Mr. J. J. Findlay.]

## ANALYSIS.

PART I.—Mutual relation of the States of the German Empire as regards higher education (§1). Three classes of secondary schools (§2). The principle of "recognition" by the State; the value of a fixed "standard of attainment" for the various classes of "recognized" schools (§3). Recognized schools must only employ certified teachers (§4). Importance attached to this recognition in the civil and military services—effect upon parents and upon teachers (§5). Possible harm to education arising from the all-powerful influence of Government deplored by school reformers (§6). State control in Germany is exercised without resorting to schemes of "simultaneous" written examinations (§7).

PART II.—*Teachers' certificates.*—(§8.) The Prüfungs-Kommission. A. Course of general education, commenced in the school (gymnasium) and continued in the university. The candidate must aim at complete mastery of some one branch of knowledge; he must also have learned something of philosophy and of education (Pädagogik) in relation thereto. B. The examination: No account taken of a university degree. C. The subsequent course of practical training.

PART III.—*The teachers' training.*—Opportunities of training during the university career, in connection with a few universities. (Note on the term "Seminar.") Service to research rendered by the university seminars. Difference of opinion as to their value (§9). Legal requirements relating to training (§10).

I. The probefahr.—It has proved to be unsatisfactory (§10).

II. The royal pedagogic seminars of Prussia.—Most of them since 1880 (§11).

III. The new gymnasial-seminars and the new compulsory law in Prussia. a. Seminar-jahr added to the former probefahr. Official regulations for the conduct of a gymnasial seminar. Its advantages as contrasted with training at a university (§12).

IV. A combination of methods in vogue at Jena avoids the defects of the Prussian plan. Does the presence of a gymnasial-seminar injure the gymnasium with which it is connected? Opinion of Hofrat Professor Richter (§13).

Summary of results obtained from German experience.

Other classes of teachers employed in secondary schools: a. Primary teachers. b. Visiting masters (§14).

Overproduction of trained secondary teachers (§16).

Training of women teachers and of teachers for special schools (for the blind, for commerce, etc.) (§17).

NOTE.—The only book to which reference is made is the following annual publication: Statistisches Jahrbuch der höheren Schulen Deutschlands, Luxemburg und der Schweiz (Part I, Prussia; Part II, The rest of Germany, including Switzerland). XIVth year. Leipzig: B. G. Teubner, 1893; 3.50 m.

§ 1. It is important to observe at the outset that while each of the German States is independent of the rest for the purposes of public instruction, practical considerations make it necessary that the smaller States should follow the lead of the latter in some important particulars; thus the recent reform in the training of secondary teachers originated by Prussia<sup>2</sup> has been at once copied by some of the smaller States, because they can only enable their students to become eligible for posts in Prussian schools by giving to them a training which the Prussian ministry of public instruction will accept as adequate. Further, the imposition of compulsory military service has brought with it the law of exemption, which releases every boy who attains a certain standard<sup>3</sup> at a higher school from two out of the three years of service. This law prevails in every State, and therefore imposes a certain amount of uniformity in standards and in modes of inspection.<sup>4</sup>

Thus, while the independence of the various States permits of a good deal of variety in method and practice, there are tendencies at work to produce uniformity, so that it is possible in general terms to describe "German" methods and to speak

<sup>1</sup> From vol. 5 of Report of Royal (English) Commission on Secondary Education.

<sup>2</sup> See § 12 below.

<sup>3</sup> So called "Einjährigenexamen." Since writing the above the three years of service have been reduced to two, and thus the burden of this examination is not now so severely felt (August, 1895).

<sup>4</sup> See Statistisches Jahrbuch der höheren Schulen, pp. V and VI, 1893-94 (B. G. Teubner, Leipzig). I refer below to this work as Stat. Jahrb.

of a "German system" of education, although deviations from the general plan may often present themselves. Further, this general system may be regarded as reaching over a wider area, beyond the German States themselves. Austria, Switzerland, Norway, Sweden, and Holland all present features closely allied to the kind of organization that we find in Germany proper.

§ 2. The registration of the teacher involves the registration of the school; the State's relation to the former is, in Germany, determined by its relation to the latter. If we classify secondary schools according to the nature of their government, we have, roughly speaking, three kinds:

(a) Government schools, maintained and directed wholly by the "ministerium."<sup>1</sup> These are very often old endowments, analogous to our English grammar schools. They are administered very much as a State department; the head master and his colleagues are appointed by the ministerium, and regard themselves in many respects as civil servants.

(b) Municipal and guild schools, founded or conducted by some local authority. These comprise most of the schools of a more modern type: Realschulen, technical schools, or high schools for girls—arising out of the local needs of the neighborhood. They are very often subsidized by the State as well as by local funds, and the subsidy, of course, carries with it the obligation to accept Government regulations; among others, those relating to the employment of certified teachers.

(c) Private schools, the property of a private individual (the type of school supported by a commercial company, so common in England, is never met with abroad).

It is sometimes supposed that private school education is unknown in Germany, but this is an error. There always have been a large number of institutions, both boarding and day schools, in private hands, and it is held, by educational reformers as well as by State officials, that their existence, under proper supervision, is a benefit and not an evil.

§ 3. The principle upon which the Kultusministerium in German States relies, in controlling schools which it does not actually administer—(i. e., schools in classes *b* and *c*)—is to give a valuable official recognition to institutions conducted according to rules and methods of which it approves, and to refuse this recognition to such institutions and teachers as choose to remain outside—a recognition so highly appreciated that it compels all good schools for boys to seek it, and no teacher ventures to embark upon his calling without reckoning with it.

To facilitate this recognition, a well-understood standard of attainment is in vogue for the various classes in each type of school understood by parents and the public generally, as well as by teachers and officers. Just as in England we understand what is meant by a boy being in the sixth form of a good public school, so in Germany the first class, second class, etc., represent fixed standards of attainment, to which all schools must conform, if they seek public recognition, and the ministerium holds itself responsible for seeing that these standards are maintained.

Two questions arise: (1) How does the ministerium satisfy itself as to the maintenance of those standards? (2) What is the nature of the public recognition—the inducement offered as a reward to the school for maintaining it?

§ 4. The ministerium lays down rules, similar to those with which we are familiar in England in the case of primary education, relating to the warmth and ventilation of schoolrooms, the limits to the numbers permitted to be taught by a teacher, and (what mainly concerns us here) the requirement that the classes shall be taught throughout the day by teachers recognized by the ministerium as qualified to give the instruction, and paid a salary on a par with that paid for similar service in Government schools<sup>2</sup> (Class *a* above). And the instruction given by teachers must be heard by inspectors from time to time.

<sup>1</sup> Every State has a department of public instruction, usually associated with that of public worship. See *Stat. Jahrb.*, I. VII-XVIII. II, 2, 242, etc. For each province of Prussia there is also a "Schul-Kollegium."

<sup>2</sup> Information as to salaries is found on pp. xxv, etc., in *Stat. Jahrb.*, and elsewhere; pensions, etc., on p. 951.

Again, the time-table of the school must be submitted to the ministerium as evidence that the school is fulfilling the programme which its description imposes upon it.

And, finally, the highest forms of all secondary boys' schools are examined for the sake of awarding leaving certificates (*Reifezeugnisse*).<sup>1</sup> The examination is mainly conducted by the staff, but an inspector supervises the work, both oral and written.

§ 5. The recognition offered by the Government as an inducement arises from the value attached to these certificates; they are essential to the future progress of any boy who seeks employment in the civil, military, or naval services.<sup>2</sup> The various branches of these services are filled not, as with us, by competitive examinations, but by selection out of candidates who have the proper "*Berechtigung*" from a school, showing that they have passed through their classes with credit. The example of the Government is followed largely not only by corporate bodies but by private employers of labor, for public opinion in Germany is only too prone to exaggerate the value of school instruction.

Hence we may summarize the attitude of the State as follows:

To the parent it says: "We do not positively forbid you to educate your children ill; you may, if you will, put him to a school of which we do not approve, and so long as he is not scandalously ill-taught we shall not actively interfere; but he will lose all the benefits that we attach to education of which we do approve, he will not escape three years' service in the army, he will not be admitted to a university or politechnikum, and he will not be eligible for Government employment."

To the intending teacher it says: "We do not compel you to seek our certificates or to undergo the prescribed course of professional training, but if you remain uncertificated you will only be able to teach children whose parents renounce the advantages which we offer. You will be able to teach neither in a Government school nor in any municipal or private school which works under our recognition; almost your only chance of employment will be as a private tutor or in conducting a school for the children of foreigners."

§ 6. Two observations will here be in place.

Opinion in Germany is unanimous as to the advantage which the country has secured from this method of control; indeed, a German can scarcely understand how any other country should be without it; but there are not a few protests from educational reformers against the uniformity with which the ministerium in most of the States (and, above all, in Prussia) imposes its views about instruction upon teachers so as to prevent progress in pedagogic research. Naturally enough the State official is inclined to regard the existing state of affairs as satisfactory; the reformer, on the other hand, considers every branch of school work as open to revision, and deplors the fetters by which the teacher's initiative is restrained; the teacher, as a trained professional man, ought to be trusted within somewhat wide limits. I think there is sufficient evidence in favor of the reformer's opinion; it is certainly true that the present generation has seen no pioneers of educational thought working out their ideas and ideals into practice. The band of teachers who were inspired first by Rousseau's "*Emile*," and then by Pestalozzi, seem to have few successors.<sup>3</sup> Fröbel was the last of them; and the education departments of the German States have done their best to drive the kindergarten out of Germany. The rigidity of school law has made independent research almost an impossibility, and yet the progress of pedagogy seems to be as dependent as other sciences upon practical experiment; there is a great expenditure of energy in thinking and in writing upon the whole field of teaching, but little progress is made, except within the circle where the teacher is permitted a free hand. True, this circle is wider than that within which the edu-

<sup>1</sup> Stat. Jahrb., p. 950, etc.

<sup>2</sup> Stat. Jahrb., p. 950 (1-4).

<sup>3</sup> The only centers where freedom in research can be properly conducted are the one or two universities where practicing schools are maintained independent of State supervision. The leaders in this movement are all Herbartians; hence the line of educational reform in Germany has followed the lead of Herbart and Ziller.



cation code<sup>1</sup> allows the primary teacher to move, or than that within which tradition and the authority of the universities have bound our secondary schools; nevertheless, the teachers of Germany are justified in their complaint that important sections of their professional work are excluded from investigation by the deadening weight of State administration.

§ 7. Secondly, it should be noted in passing that the entire system of school inspection, involving the maintenance of uniform standards throughout the whole country, is conducted without introducing the evils of simultaneous written examinations, which in England have done so much to destroy the efficiency of teaching, but which we find it so difficult to dispense with. The system, especially that part of it which deals with exemption from military service, does bring with it some of the evils of overpressure and of "cram"; but the German schools are not troubled by the requirements of elaborate examination regulations leading up to papers of questions set by external authorities, who have no knowledge either of the teacher or of the school. Indeed, until a boy comes to his last year of school life he does not come directly under the eye of external authorities at all; the *direktor* and *lehrercollegium* of his school, subject to the occasional inspection from the ministerium, are trusted to carry out their work in a professional spirit. Anything like serious inefficiency or breach of trust is readily exposed in a school community, which has close relations not only to Government, but to a multitude of families jealously anxious for their children's intellectual progress. I make this observation because I believe it to be possible in this country also to introduce efficient control over our secondary schools, without burdening either pupils or teachers with new schemes of simultaneous examinations.

§ 8. Teachers' certificates.—The requirements described above (that every class in a recognized school shall be taught in every branch by a teacher certified as competent for the purpose) imposes upon the ministerium the duties of registration, and for this purpose every German State and each of the provinces of Prussia has its examination committee (*Prüfungs-Kommission*),<sup>2</sup> consisting partly of professors, partly of State officials. This commission takes charge of the candidate from the time when he first presents himself until he has passed through his course of training and is finally certified as "*Oberlehrer*."

The regulations may be distributed under three heads:

A. Course of general study, previous to entering upon professional work. The candidate's papers must show—

(1) That he has been educated in a first-grade school,<sup>3</sup> gymnasium, realgymnasium, or oberrealschule, from which he has passed with credit as a student in a German university.

(2) That he has spent at least three years in study at one or more of the German universities.

NOTE.—Most candidates spend four, many five years, before presenting themselves for the test. Teachers are now petitioning to be permitted to spend part of this time at foreign universities, for the sake of a wider general culture, as well as for the acquirement of modern languages.

(3) That his studies have comprised—

(a) Some special branch of scholarship in which he desires to be certified as competent to give the highest instruction, and one or two branches allied to this.

Every teacher is certified not only as generally competent but as especially qualified in certain branches. Thus one master on a staff may be certified to teach Latin and Greek up to the highest classes, and French up to *tertia* only; another, mathematics up to *prima*, and chemistry and physics up to *tertia*; both of them being also certificated as "*form masters*" (*Klassenlehrer*), since they are compelled to qualify also in the branches mentioned in the next paragraph.

<sup>1</sup> Of England.

<sup>2</sup> Stat. Jahrb., pp. viii-xviii, Part B, pp. 240-242, etc.

<sup>3</sup> Stat. Jahrb., Part B, p. 950.



(b) Religion, philosophy (ethics and psychology), education,<sup>1</sup> history, and literature of the Fatherland.

These branches are not imposed as part of the candidate's general education, but as a part of his professional training. The general education<sup>2</sup> of the teacher is concluded when he leaves the gymnasium and enters the university, precisely as is the case with the student of medicine or of law. We may note, therefore, the special reasons which lead the ministerium to impose these selected studies upon all candidates.

Religion is required, owing to the special relations in which the state stands to the church. The kultus ministerium is at the same time the ministry of public worship in most of the States. The examination is always of a serious character, and involves laborious preparation.

Philosophy and education, unless offered by the candidate as a special study, are tested more generally. The candidate is expected to understand the elements of ethics and psychology as a foundation for the studies in education which he will pursue in greater detail presently. He is expected to have used his opportunities to hear university lectures on *pädagogik*, especially in its philosophical and historical aspects. Courses of this character have been given almost everywhere by professors of philosophy since the days of Kant and Wolff. If the candidate shows a special interest in the subject, it will in some States be to his advantage; in others it will not, for many influential men distrust the theoretical presentment of educational doctrine by professors who live apart from the school. A candidate, however, who had wholly neglected the subject would be in danger of rejection, and he would never satisfy the commission if he proved to be unacquainted with philosophy.

The history, geography, and literature of Germany are required of all candidates for a reason analogous to that which requires religion; the foundations of patriotism and civic duty are to be laid in an accurate knowledge of the history and the thoughts of the German people.

The candidate has already shown a knowledge of this subject, as well as of general history, ancient and modern, in the leaving certificate which he has brought from the gymnasium, but this is not considered sufficient for the teacher without a more detailed study of the nation's fortunes.

Here concludes the course of professional study which the candidate must undertake before he presents himself to the commission.<sup>3</sup>

B. With certificates showing that the candidate has passed through this course of study, he presents himself for the "*Staatsexamen*," which is conducted by members of the commission, or, in part, by professors whom they may nominate for the purpose. The examination is partly oral, partly it consists of theses written by the candidate to show that he has done some independent thinking on the lines of his special studies; very usually a candidate will also be given a subject on which he will be bidden to produce an essay within forty-eight hours, giving his word of honor that he has written it without assistance except from books. It should be noted that some of the examiners are already acquainted with the candidate before he presents himself for the *Staatsexamen*. The professors on the *Prüfungs Kommission* are teachers in the university where the candidate has pursued most of his studies; he has attended their seminary, and they have advised him and watched his progress.

Finally, this *Staatsexamen* takes no account of the university degree. Teachers are placed on exactly the same footing as clergymen, medical men, or lawyers—each must pass his *Staatsexamen* before being permitted to practice. If they choose, they can also present themselves before the philosophical faculty of any university in Germany for the doctor's degree, and teachers usually do so, for the examination is

<sup>1</sup>*Pädagogik*.

<sup>2</sup>So far as the State regulates it. It is, of course, recognized that the university student is gaining general culture as well as technical training during his university career.

<sup>3</sup>On sending in his name as a candidate he must forward the whole set of certificates to the office of the *Prüfungs Kommission*.

not so severe as the Staatsexamen and covers similar ground. If an Oberlehrer is found without the title, the omission is due to poverty, for the expenses in fees are considerable; while, however, the title is sought for the sake of social and academic distinction, it is ignored by the law; the universities are not authorized to confer benefits beyond those that properly fall within their province as an academic society.

C. Having passed this examination, the student is admitted to a course of training as a "Schulamts Kandidat."

§9. *The teachers' training.*—Hitherto the student has not been compelled by law to interest himself very seriously<sup>1</sup> in education; his main attention has been devoted to "liberal" studies—classics, mathematics, or modern languages, as the case may be. But it is important to notice that students who take a special interest in Pädagogik have opportunities for pursuing their inquiries during their university career. The liberty allowed to the German undergraduate of keeping terms in any German university enables such men to go to Halle, or Leipzig, or Giessen, or Jena, in each of which universities elaborate arrangements are made for "practical" training in school classes, associated with courses of university lectures. There are professors of pedagogy in these universities who have charge of a school, or of classes in a school, where students can teach under supervision. At Leipzig and at Giessen the professor is also head master of a large gymnasium;<sup>2</sup> at Jena he is given charge of a small practicing school conducted by his assistants solely for the purposes of pedagogy, while at Halle a so-called Pädagogium has been in existence since 1700 as a part of the great Franckesche endowment. In other universities a professor of philosophy will frequently give a course of lectures on pädagogik, and may also conduct a "theoretical" seminar<sup>3</sup> for the study of the subject by means of papers and discussions, but in these four universities a "practical" seminar is arranged, of which criticism lessons form a part, and in which the whole range of school work is brought under review.

These "practical" university seminars have played an important part in the development of higher training. Firstly, they have maintained the close association between pedagogy and philosophy. Training readily tends to be reduced to a system of rules-of-thumb, put together from the limited experience by busy schoolmasters, and to neglect the wider and more permanent issues to which a right presentment of education must always appeal. Now, in a German university both professor and student are free to contemplate the field at leisure, with less regard to the exigencies of the moment, independent of Government codes or State inspectors. It was in such a seminar that Herbart, when he succeeded to the chair of Kant at Königsberg,<sup>4</sup> gathered round him the band of students who have developed his ideas into the science of education as it is understood in Germany to-day.

Secondly, they have been pioneers, working out by experiment the problem with which we are here concerned, as to how young men may best be trained for the work of higher teaching; they have attracted the promising undergraduates who in later life have become either distinguished head masters, directing gymnasial<sup>5</sup> seminars or have served as directors of primary training colleges.

Now many university professors are of opinion that the whole business of higher

<sup>1</sup> See §8, above.

<sup>2</sup> See below, §13.

<sup>3</sup> Note on the term "*seminar*."—The word is used in two senses, which have to be kept distinct.

1. In a university a seminar is a weekly meeting such as all professors conduct with their best students to stimulate discussion and independent investigation.

2. The term is also used to describe training colleges for teachers, whether day or boarding.

Thus: Lehrerseminar = Primary training college.

Gymnasialseminar = Training college for secondary schoolmasters connected with a gymnasium.

A training course conducted by a university professor of pedagogy (Ein pädagogisches Universitäts-Seminar) partakes of both characters.

<sup>4</sup> 1809-1833.

<sup>5</sup> See below, § 12.

training ought to be conducted on this model: Establishing chairs of pedagogy, with practicing schools attached, in every university. Other professions—medicine and law—look to the university for practical as well as theoretical training; why should it not also serve for the teaching profession?<sup>2</sup> Their argument is strengthened by the development of university activity which recent years have witnessed; not only are medical and dental students provided with “practical” seminars, associated with hospitals and “cliniks,” but natural science students and students of agriculture have now their laboratories, all directed by professors in “practical” seminars.

On the other hand, the prevailing opinion among head masters is that the “practical” side of training can only be imperfectly undertaken by a university department, and that the detailed study of school practice should be delayed until the student has closed his university career. The question can not be regarded as finally settled, but for the present the action of Prussia in 1890<sup>1</sup> has opposed the professorial view; the work done in the four universities will no doubt develop and is likely to be imitated elsewhere, but in the eyes of school law it will continue to be regarded as affording opportunities to the best men rather than as a plan on which the mass of teachers are to receive training. In what respects, then, is higher training a matter of compulsion and not of choice?

#### § 10. The legal requirements relating to training:

I. *The Probejahr*.—For more than fifty years every intending teacher, after passing his Staatsexamen, has been sent to a gymnasium or other secondary school for a trial year, called the Probejahr.<sup>2</sup> He is not paid any salary, but is attached to the staff, teaching for a few hours every week and learning what he can from the head master and his colleagues. During the year he produces a few pedagogic theses and is expected to acquaint himself with the work of the various classes of the school, and particularly with those branches of instruction in which he is certified as a scholar.<sup>3</sup> At the close of the year a report upon his progress is submitted to the Prüfungs-Kommission by the head master in conjunction with the staff (*Lehrerkollegium*), and he is then certified as “*Oberlehrer*.”

This year of trial has been more or less useful according to circumstances. Under a headmaster of ability, ready to take an interest in training, the Probejahr might be of the greatest benefit; but very often the Probekandidat has learned little more than if he had been put to full work with full pay. True, he has had the benefit of looking round upon every department of school work, and the head master has the responsibility of giving him hints and of putting him into the ways of the place, but very little has come of the plan, and dissatisfaction, with its results, has always been felt. It has had, however, one great advantage: If a young man is a hopeless failure the head master and staff refuse to recommend him at the year's end, to the mutual advantage both of the candidate and of the schools.

This Probejahr may then be regarded as the first step in the development of an efficient system of training on the “practical” side, and it represents the low-water mark of achievement in the German States. Several of the German States have for many years made better provision. Thus, in Hessen and in the Kingdom of Saxony, where there exist universities<sup>4</sup> above alluded to, with a chair of pedagogy and a “practical” seminar, the ministerium has compelled students to join this seminar for one or more terms, either before or after passing the Staatsexamen.

#### § 11. The Royal Pedagogic Seminary in Prussia.

II. In Prussia another method has been adopted which has provided training for about seventy students. Twelve institutions, called *Königliche Pädagogische Seminare*,<sup>5</sup> have been founded with scholarships (*stipendia*) to assist students who attend

<sup>1</sup> Described below, § 12.

<sup>2</sup> The Probejahr is described by Mr. Storr in his evidence before the House of Commons committee on the teachers' training and registration bills, 1891, pp. 131, 132 of Special Report.

<sup>3</sup> Pp. 117-119, above.

<sup>4</sup> Leipzig and Giessen, above referred to; for Giessen see *Stat. Jahrb.*, II.

<sup>5</sup> *Stat. Jahrb.*, XVIII-XXI.



them. Most of them were established or reorganized about 1880, when the feeling of dissatisfaction with the Probejahr began to be widely felt. These seminars consist of a director and from five to ten students, who practice in one or more secondary schools in the neighborhood; in several cases the Direktor is also head of a gymnasium. The feature to be noted about these seminars is that they are wholly unconnected with a university, although several of them are in university towns; two or three of them are open only to classical men; one, in Berlin, is confined to modern-language teachers.<sup>1</sup>

Thus, about 20 per cent of the best candidates offering in Prussia have been provided for, and elsewhere in Germany a few similar seminars may be found; but in no case have they supplied the wants of all candidates, and the Probejahr, up to within the last three years, has been the simplest mode of fulfilling Government requirements with respect to training.

§ 12. III. The new Gymnasial Seminar in Prussia.—The importance of the reform of 1890<sup>2</sup> lies in the fact that it compels all candidates to take a year of real training in a properly organized seminar, and this in addition to and before the Probejahr. The Kultus ministerium of Prussia would, it seems, have adopted this compulsory rule long before if it had seen its way to organize the training for all its candidates. It determined finally to extend the method already adopted in the Royal Pedagogic Seminary and to disregard the claims of the universities to share in training. An invitation was given to some forty of the ablest head masters to establish small seminars in connection with the staff of their schools. A small increase of salary was assigned to the head master and to those of his assistants who joined him in the care of these young men.

The Prussian candidates are now distributed in classes of from 4 to 10 students among some 50 to 60 seminars, the 12 of earlier endowment and the 40 set on foot in 1890.

It is often asked, In what respect does this Seminarjahr, now imposed as an additional year of training, differ from the Probejahr, since both are under the direction of head masters? The difference lies in the elaborate regulations made by the ministerium to insure that the training is effective, and in the provision of proper time<sup>3</sup> and proper remuneration to those who assist in it. According to the official regulations, the head master and his staff are responsible for the following:

(1) A complete course of study and reading, with informal lectures and discussions on pedagogic principles in their application to secondary schools, particularly dealing with those branches in which the candidates are specially qualified to teach; school administration and school hygiene not to be lost sight of; importance to be attached to recent pedagogic literature.

(2) Associated with this study there must be systematic practice in teaching, going from the bottom of the school to the top, with weekly discussions presided over by the Direktor.

(3) The candidates to have the same status as the permanent staff, and to attend its weekly meeting,<sup>4</sup> to join in all assemblies and other school functions, games, festivals, school tours, and the like.

(4) Toward the close of the year the candidates are to write essays on subjects assigned by the director, who finally sends to the ministerium a full report of the year's work. Thereupon the ministerium will appoint each candidate, either to the same or to some other school for a probejahr.

In the eyes of head masters the great merit of this plan is that they are training assistants after their own style; it is the advantage of the apprentice system as

<sup>1</sup>I am told that these royal seminars have taken little interest in pedagogy; their work has been mainly in classical or modern philological studies.

<sup>2</sup>Stat. Jahrb., XXI, XXII.

<sup>3</sup>It is said, however, that in many of these new gymnasial seminars neither the time nor the remuneration are adequate to a right performance of these new duties.

<sup>4</sup>Lehrerkonferenz; required by law to be held weekly in every German school.



contrasted with the technical institute. Every school has its own way of doing things, and a good staff will be willing to take trouble with candidates, in the hope of filling vacancies as they occur with the best of them. A better argument in favor of this gymnasial seminar as opposed to a university seminar is that it brings the student into daily contact with children. There is a great temptation to theorize upon educational topics, and the speculative character of university studies encourages the tendency. The best corrective to it is to be placed much among children and to be trained to observe them in daily intercourse. This personal interest in boys seems very difficult to young men while they are still engaged in university studies, and yet they can not safely pursue pedagogy in the absence of it.

§ 13. IV. *The combination of methods employed in Saxe-Weimar.*—The Duchy of Saxe-Weimar is one of the smaller States which have followed the lead of Prussia, compelled by the practical difficulty alluded to in section 1. It has established a gymnasial seminar in connection with the gymnasium at Jena, but it has also aimed to supply the defects of this method by associating the training of its students with the chair of pedagogy in the university.<sup>1</sup> Every Schulamts-Kandidat in Saxe-Weimar is compelled to spend his seminarjahr at Jena, which has for many years been a chief center of pedagogic study, and is at present the only university which grants funds to conduct a practicing school. Now, the weakness of the Prussian gymnasial seminar lies in the fact that it is conducted by a head master and staff who have left their speculative studies behind them and are likely to ignore the scientific aspects of education and to depreciate the value of research. The Weimar ministerium has therefore sought to avoid this danger, and from close personal observation I am enabled to form a high opinion of the result. By working in the gymnasium the students become familiar with the specific character of gymnasial teaching, but at the same time they are following the training of the university seminar, where they mix with teachers of many types, foreign as well as German, and take their share in prosecuting inquiries and experiments. Thus the narrowing tendency of the gymnasial seminar is corrected by the free and critical spirit prevailing in the university seminar, and the tendency to undue academic speculation in the latter is balanced by the daily routine among teachers of experience in the gymnasium.

NOTE.—An objection is often raised to the training of teachers by giving them practice in school classes, that the teaching<sup>2</sup> suffers too seriously; parents, it is said, do not send their boys to school to be practiced upon by novices. It is not my place to argue the question here; but I may point out that the danger is minimized in these gymnasial seminars by limiting the number of students. Ten is the maximum allowed by the law. Now, 10 students teaching only for ten hours a week each, in a school of 300 to 400 boys, will not seriously injure the instruction, even if it be granted that these criticism lessons do prove to be injurious. The benefit of the plan to the staff is undoubted. Hofrath Richter, the head master of the Jena Gymnasium, reports as follows in his Jahresbericht for 1891-92: "The boys have quickly become accustomed to the presence of a few students in the classroom, and, indeed, we observe a stimulus to their attention and interest when I myself or one or two of my colleagues are also present. And the seminar has certainly had a beneficial effect upon the work of the staff; the masters have the strongest inducement, both to prepare their lesson notes with care and to impart their instruction effectively, since they are to be heard by the seminar students."

§ 14. The following will, perhaps, summarize the results of German experience in training up to the present:

(a) There are two organizations to which the charge of training secondary teach-

<sup>1</sup> Now filled by Professor Rein, the leader of the Herbartian School. The Herbartians have been the main supporters of practical training in the university, as opposed to the merely speculative and theoretical treatment of pedagogy by professors of philosophy or theology, apart from practical work. (See page 704.)

<sup>2</sup> The progress of the boys.

ers should be intrusted—the university and the best schools. Neither of these can do the whole work alone. If the university attempts training, its professor should have some kind of a practicing school; if a secondary school establishes a training department, it must see to it that theory, based upon philosophy, is provided beforehand or side by side with the training.

(b) Comprehensively considered, training covers the whole period of study from the time when the intending teacher leaves school. But the first portion of this period of study (for a degree, or the like) should be conducted, if possible, apart from professional training proper, and, for secondary teachers, should undoubtedly be undertaken at the university.

(c) Training can not be accomplished by a course of private reading followed by an examination; a teacher's certificate is only of value when it shows that the student has been instructed in the science and art of teaching. The certificates of responsible instructors, professors, or head masters, showing that the student has done every part of his training under their oversight, should be an indispensable requirement before registration; an examination, oral or written, can only be regarded as supplementary.

(d) While a comparatively easy gate may be left open for the registration of the ordinary teacher, it is essential to progress that opportunities for advanced training and for the best quality of work be afforded in universities, which should be the appropriate centers for research, in pedagogy as in other fields of professional study.

§ 15. The above account has dealt with the ordinary secondary schoolmaster (Oberlehrer), but two other classes of teachers are employed in secondary schools:

(a<sup>1</sup>) Primary teachers (Volkschullehrer), who have been trained in primary training colleges, and who can qualify to teach the lower forms of a gymnasium, or to teach certain branches, by passing an appropriate examination. In the gymnasien and realschulen about 20 per cent of the whole staff are perhaps drawn from the ranks of the primary teachers; in the third grade schools (Höhere Bürgerschulen) more than half.

The Oberlehrer is always a university man, the Volkschullehrer is not and can not be, but he has very often received a better pedagogic training,<sup>2</sup> and he is placed on a full level of equality with the rest of a gymnasial staff, if he takes a post in a gymnasium instead of remaining in primary work. I do not intend to deal further with the training of these teachers, because this would fall more properly under an account of primary education.

(b) Teachers of special branches, such as drawing and music (Fachlehrer or Technische Lehrer),<sup>3</sup> not regarded as a part of the staff (Lehrer-Kollegium), but certified as belonging to their own profession, as teachers of music or art teachers. These must be certified, like the rest, by the authority of the ministerium, not only as artists, but as competent teachers of their art; their training is regulated by rules applicable to their profession; they must have studied at a conservatorium or a gewerbeschule,<sup>4</sup> or the like.

§ 16. It remains to be pointed out that the States of Germany, in undertaking the control of teachers' training, have done nothing to provide that the teacher, when trained, shall find employment. The same is true, of course, in other professions. In England we meet with many educated men who can not find employment, but in Germany there are far more to be found, and they have not only been highly educated, but have been severely trained. Many Oberlehrer, unable to find a post in a secondary school, have in recent years been admitted as teachers in primary schools; not a few have emigrated; finally, the ministerium in Prussia<sup>5</sup> and in other States have

<sup>1</sup>Stat. Jahrb., 251.

<sup>2</sup>Out of the six years of training required for primary teachers, two are almost entirely given up to pedagogy, practical and theoretical.

<sup>3</sup>Stat. Jahrb., 591. etc.

<sup>4</sup>School of art or technical college.

<sup>5</sup>Stat. Jahrb., 951 (4). Compare the year 1888-89 with the year 1891-92.

made an effort to discourage young men from coming forward as candidates, in order to reduce the supply to a level with the annual number of vacant posts. The question is, in fact, being raised in Germany whether the public authority, which registers teachers by compelling them to a prolonged course of training, should not look forward to their future, and recognize some sort of obligation to find employment for them. Definite action by means of a school law is difficult, and to raise the standard of attainment unduly is unjust,<sup>1</sup> because it injures the candidates by excessive strain; but the excessive competition of an overcrowded profession is equally injurious, and in the schools it produces evils from which both teacher and child have to suffer. The evils are perhaps not so apparent in Germany as in England, because of the control of higher education; but this cause has not suppressed the mischief, although it has modified the form of it.

§17. The training of women teachers and of teachers in special schools.

The influence of women upon German education is very small, and men teachers continue to shut them out from the more important posts in girls' high schools. Some who in theory believe in the value of women as teachers consider that it is unwise to encourage them at present in Germany, so long as a large number of trained men are without employment. Hence the principalship and the best-paid posts in girls' schools are occupied by men,<sup>2</sup> although many instances may be found where lady principals are permitted, especially in semiprivate schools, which are subsidized very often by town councils.

A woman in Germany can not aspire to the highest rank in any profession, for the university is the only gate to the professions, and she is almost universally excluded from university studies; hence her only path to a teacher's certificate lies in seeking training in a primary training college for women teachers (Lehrerinnen seminar). After this course women students usually spend some years in England and France, if they aspire to teach in high schools. The only other method of training is to gain admittance to one of the seminars which in a few cases have been attached to girls' high schools of reputation on the plan of the gymnasial seminar.

Finally, it should be added that all kinds of special schools—for the blind, for the deaf and dumb<sup>3</sup>—as well as commercial and technical institutions,<sup>4</sup> come under the inspection of the ministerium, and hence the teachers of these institutions are required to be equipped with appropriate qualifications. Thus the endeavor is made to extend the benefit of public oversight to every branch of education.

MAY, 1894.

#### MEMORANDUM BY MR. M. E. SADLER ON THE LEAVING EXAMINATION AS CONDUCTED IN THE SECONDARY SCHOOLS OF PRUSSIA.<sup>5</sup>

As reference is frequently made in the course of this report to the German Abiturienten-Examen, a short account of the way in which it is actually conducted may be of service to those who are unacquainted with the details of the system. For the particulars I am indebted to Dr. Emil Hausknecht, of Berlin, a teacher with wide knowledge of German secondary schools.

For each type of secondary school in Prussia a general plan of studies is laid down by the State. But the lines of this general plan are so wide as to give to the head master of each school considerable freedom in framing its curriculum. In this task he naturally takes counsel with the teachers on his staff. When the head master has thus, with the aid of his assistants, planned the curriculum of his school in full

<sup>1</sup> It is no secret in Prussia that that probejahr has been maintained as a sequel to the new seminar-jahr in order to make the career more difficult, and thus to reduce the competition at the expense of the candidate's time and means.

<sup>2</sup> Stat. Jahrb., I, 833-1181.

<sup>3</sup> Stat. Jahrb., I, 733-832.

<sup>4</sup> Stat. Jahrb., II, 96-104, etc.

<sup>5</sup> From vol. 5 of the Report of the Royal (English) Commission on Secondary Education.



detail, his scheme has to be submitted to the "college" of inspectors for their approval. Every three years the plan of studies must be reviewed by the head master and again sent in for the approval of the college of inspectors as before. If in thus revising his curriculum the head master proposes any considerable alterations he must state at length his reasons for doing so. He is also permitted to append to his own statement a supplementary report on the points in question prepared by one of the teachers on his staff. Three written copies of this detailed plan of studies are preserved, one being in the possession of the head master, another in the hands of the inspector, and the third being kept for reference on the part of any assistant teacher in the school.

There lies on the desk of each class room in the school a log book, in which the teacher, before leaving the room at the end of a lesson, enters a brief record of the work done in the course of it. This log book or diary is always accessible to the head master and to the inspector, for whose guidance a complete picture of the course of instruction given in the class is thus preserved. The head master and the inspector, by the aid of this diary, are enabled to check the teacher's methods and to assure themselves that he adheres to the course of instruction prescribed in the detailed curriculum.

Moreover, the more important exercises of the pupils, and especially the "unseens," are written, not on loose sheets of paper, but in notebooks, in which corrections and criticisms are also written by the teacher. The exercises and the corrections are both dated, and the notebooks containing them are carefully preserved for reference for one year, or, in the case of the highest class, for two years. Each pupil has a separate notebook for each subject.

The log book and the exercise books together thus provide a continuous record of the work done by each class. They are regularly examined by the head master, and also by the inspector when the latter visits the school. This he does without notice and at his pleasure, and almost always within the two or three months immediately preceding the leaving examination. The less efficient schools are more frequently inspected. The inspectors, it should be added, are invariably men who have had previous experience as teachers. They are usually appointed when about or a little more than 40 years of age. There are no women inspectors. To each inspector a group of specified schools is assigned for a short term of years. When the inspector visits a school he examines the log books and the exercise books and listens to the teaching given in the classes. He is also permitted to put questions to the pupils, and very often does so.

At the end of each school year there is a "promotion examination" in every class below the highest. The written part of this promotion examination is conducted by the teachers alone, but the oral part is held in the presence of the head master, who may also himself question the scholars. As a matter of fact, only those boys are examined orally whose marks (either in the written examination or in the general report on the year's work) are unsatisfactory. The report on the year's work of each boy has to be sent in to the head master before the written examination begins. It is drawn up in simple symbols; + signifying "ripe," O "not ripe," and ? "doubtful." No great importance is attached to the promotion examination, and boys are sometimes promoted even though they have done badly in it. Promotion from class to class is not determined mechanically by the scale of marks obtained in the promotion examination, but depends on the general character of the pupil's work during the year.

The leaving examination is confined to boys in the first class. Under ordinary circumstances about 25 boys will enter for it in each school. Three months before the examination begins each boy prepares a biographical sketch, in which he shortly reports on his previous education from its commencement to the date of the composition. He is allowed to specify the subjects of which he is particularly fond (including any subject not taught in schools) and those which he had special difficulty in studying. Two months before the examination each master sends to the



head master a paper of questions or problems in the subjects on which he has given instruction. This paper contains three times as many questions as will be required in the leaving examination. The head master examines the questions and either approves them as they stand or revises them after consultation with the teacher concerned. These sets of questions are then sent to the inspector, together with a long characterization of each pupil, written by the class master and agreed to by all the masters engaged in teaching the boy, as well as by the head master. This report on the character of the pupil's work is long and full, being written, partly in symbols and partly in words, on printed schedules. At the same time, also, each master has to report of each individual pupil whether he thinks him ripe to pass the examination. On this point the opinion of the master, on which much depends, is expressed in the words "yes," "no," or "doubtful." His decision, which is based on the boy's work during the year, weighs as much as the written and oral examinations which follow put together. Each boy must have reached in his year's work a certain standard in eight or nine subjects, but special success in a "compensatory subject" countervails failure in one other, German excepted.

On receiving the papers of proposed questions and the reports on the individual pupils, the inspector carefully examines them, and may refer the questions in any subject with which he is not himself familiar to one of his colleagues in the "college" of inspectors to which he belongs. Each "college" will naturally have among its members an expert in each branch of the school curriculum, but different parts of the same school are not assigned to different inspectors. On the contrary, each of the schools is placed, as a whole, under the care of one inspector only for a term of years. The teachers in a particular school may thus come to know in what subjects their inspector is weak, and this may have some effect on the work of the school. It is said, however, that in practice the effect is small, care being taken not to assign a school in which the teaching of a particular subject is weak to an inspector whose knowledge of that subject happens also to be defective.

When the inspector has perused the papers of questions and the reports, he fixes the date for the oral examination. The head master of the school then appoints a day for the written examination, usually choosing a date which will fall from four to five weeks before that fixed by the inspector for the oral examination. The day before the written examination the inspector sends back to the school the papers of questions, having marked on each paper one-third of the questions. The questions so marked are set in the examination. The papers of questions are sent to the head master by the inspector in sealed envelopes, each paper under a separate cover. The questions are not printed. On the day of examination the head master is required to hand the envelope containing the questions, with the seal still unbroken, to the class master in the presence of the candidates. The envelope is then opened and the marked questions are dictated to the candidates, one or more of the latter being asked to repeat them in order to prevent mistakes. From two to five hours are given for each paper, allowance being made for the time taken by the dictation of the questions. The master concerned fills in a certificate showing the exact time at which the seal was broken, when the dictation began and ended, and when the worked papers were collected by him. There are five subjects in which written examinations are held, and the papers are set on consecutive days. Only one paper is given on each day. The dates of the written examination are sometimes so arranged that a Sunday falls in the middle of the examination.

As the master thus knows beforehand the whole list of questions from which those set in the examination will be taken, it may be asked whether he does not specially prepare his pupils to pass in those particular subjects. A strict code of professional honor condemns and prevents any such unfair preparation. It is said that an ordinary teacher would rather commit suicide than thus cram up his boys beforehand to pass in the questions set by himself. His spirit would revolt against the suggestion. At the same time some teachers are occasionally suspected of the practice. In case of such suspicion arising, the inspector pays frequent visits to the class taught by the

suspected master, and closely examines the character of his daily work. He is also free to refuse any of the three sets of questions prepared by the teacher, and to substitute a paper set by himself. But the most effective check on dishonorable practice lies in the fact that any teacher suspected of violating the spirit of the examination is scouted by his colleagues and condemned by professional opinion. If detected in any such offense he is branded with disgrace and dismissed without a pension.

Each set of answers worked in the examination is looked over by the master, who marks each answer 1, 2, 3, or 4, (i. e., very good, good, sufficient, or insufficient). Papers receiving any one of the three highest marks are allowed to "pass." The master is required to set forth in writing the grounds of his decision in respect to each paper. Furthermore, all the teachers concerned with the class look at the papers of all the candidates, and at the biographical sketches prepared by them, in order to form an opinion about each boy. When all this is done the masters meet and make collectively a short report as to the "ripeness" of the various candidates for passing the examination. In making this supplementary report they take into account both their own first decision and the boy's work in the written examination.

All the worked papers, together with this second report and the boys' own biographical sketches, are now sent to the inspector, who, the day before his visit for the viva voce examination, looks through representative parts of the candidates' work.

On the day of the viva voce examination the inspector first presides over a meeting of the examination board, which consists of those masters to whom the head master has intrusted the care of the highest form during the preceding year, together with the head master and the inspector, the presence of the latter being required to make the board technically complete. On the board each man has one vote, the inspector having also a casting vote on any subject on which the opinion of the board happens to be equally divided.

At this meeting of the examination board the inspector first makes general comments and criticisms on the work done in the class. Next he criticises the papers set for the examination, with special reference to their fitness to the particular school, and to their easiness and difficulty as compared with other papers set in corresponding schools elsewhere. He then reviews the corrections made by the teachers on the boys' worked papers. Of these corrections the inspector either states his approval or suggests alterations in them. Next he turns to the marks of each candidate and goes carefully through the record of his work. In case of any doubt he questions the teachers as to the boy's work, or looks into his exercise books for the last two years, these books being required to be at hand during the meeting. Finally, he takes a vote on each boy. According to this vote the candidate is (1) either declared "ripe" without any further viva voce examination (which is equivalent to passing with honors); or (2) admitted to the viva voce examination, in which case he is so examined only in those subjects in which he has not been marked as "sufficient" both for his year's work and in his written examination; or (3) excluded from the viva voce examination. A candidate so excluded is considered as having failed in the examination, and after three such failures a boy can not be admitted to the leaving examination again.

As soon as it has been decided in the meeting of the examining board which of the candidates are to be excused from the viva voce examination, which are to be admitted (and in what subjects), and which are to be excluded, all the candidates are assembled for prayers, and are afterwards introduced to the inspector by the head master. The inspector then announces the names of those who have passed the examination without having to undergo viva voce questioning, and, with a few words of congratulation, excuses them from further attendance. He then tells the other candidates in what subjects they will be required to be examined viva voce, and the oral examination begins at once.

A candidate who is admitted to this viva voce examination can "pull himself up" in any subject in which he has failed to obtain the mark "sufficient" in the written examination. The master, however, may refuse to allow him thus to retrieve his

failure. In case of such refusal, however, the candidate may ask to be examined *viva voce* in any subject in which he has been marked 1 or 2 (i. e., "very good" or "good"), special success compensating for failure in any subject except German and religious knowledge. If a boy's written examination work is marked higher than was his year's work, he must be examined really in order to compensate for loss of marks in respect of his comparative failure in the course of instruction given during the year. If, on the other hand, a boy does badly in the year's work, and passes in the written examination, but fails in *viva voce* he is regarded as having failed in the examination.

In order to lessen the number of papers, there is no written examination in some subjects—e. g., religious knowledge, history, and geography. Each boy's *viva voce* examination in each subject generally lasts from twenty minutes to half an hour. Every candidate must pass in all subjects, except drawing, singing, and gymnastics.

The inspector may, if he likes, examine a boy *viva voce* in religious knowledge, history, and geography; but in these subjects the master's report on the candidate's work during the year is generally decisive. The teaching of history in German schools is said to be good, though the results are rarely subjected to an external test in the leaving examination. As a matter of fact, however, boys in the highest class often find no small difficulty in obtaining from their teacher a satisfactory report in history and religious knowledge.

The *viva voce* part of the leaving examination, including the meeting of the examining board which precedes it, usually lasts one day—e. g., from 8 a. m. to 6 or 7 p. m., with a short break for lunch.

At the close of the examination day the examination board meets once more, the inspector being present. At this meeting all the other masters attend and may be asked questions by the inspector; but they have no vote or voice in the discussion. The results of the examination are announced at the end of the day, each candidate being simply told whether he has passed or failed. But the certificate which the candidate receives afterwards goes into very considerable detail.

When held in schools which have a nine-years course the leaving examination admits the successful candidate to the university, except that in the case of the real-gymnasium and the ober-realschule it does not admit the student to academic study in classical philology, philosophy, theology, law, or medicine. When held in the real-schule, where the course is of six years' duration, the leaving examination confers a certificate which admits the holder to many of the professions and to the civil service.

It will be remembered that in his report on German schools, presented to the schools inquiry commission, Mr. Matthew Arnold thus summarized the rules of the leaving examination: "It is to be such as a scholar of fair ability and proper diligence may, at the end of his school course, come to with a quiet mind and without a painful preparatory effort, tending to relaxation and torpor as soon as the effort is over." And he remarked on the care which is taken that "the instruction in the highest class should not degenerate into a preparation for the examination; that the pupil may have the requisite time to come steadily and without overhurry to the fullness of the measure of his powers and character; and that he may be securely and thoroughly formed, instead of being bewildered and oppressed by a mass of information hastily heaped together."

The Prussian *abiturienten* examen is interesting alike in respect of its methods and in the privileges which it confers. Its methods are carefully devised so as to give to the teacher a large degree of freedom in framing the curriculum of his school and in forming a fair judgment of his pupils' abilities. But the whole examination depends on the fact that it is attached to an organized system of inspection. There seems, however, nothing to prevent this method of examination (with some modification) from being tried experimentally by one or other of our examining authorities.



## CHAPTER XV.

### HIGHER EDUCATION IN RUSSIAN, AUSTRIAN, AND PRUSSIAN POLAND.

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TOPICAL OUTLINE.—*General summary of education.—Plan and arrangement.—Extent of Poland.—The Poles and the dismemberment.—Language.—Its structure. Sketch of the higher education in Poland during her independence: Ancient foundation of the University of Cracow; its early history.—Polish schools at the time of the Reformation.—Revival of higher education and downfall of Poland. Higher education in Russian Poland: The New University of Warsaw.—Constitution of the University of Warsaw.—Latest statistics of the University of Warsaw.—Report of the rector.—The four faculties.—Institute of veterinary surgery.—University library.—Archives.—Secondary education in Warsaw.—Musical education in Warsaw.—Secondary education in the country at large.—Wilno.—Archives of Wilno. Witebsk. Higher education in Austrian Poland: New University of Cracow.—Imperial Academy of Sciences.—The four faculties.—University library.—State archives.—University of Lemberg.—University library; Ossoliński library; Archives.—Imperial School of Technology in Lemberg; secondary schools.—Secondary schools in Galicia. Education in the ancient Polish provinces of Prussia: Polish origin of the University of Königsberg.—Lyceum Hosianum; secondary schools in Prussia; libraries.—Province of Posen, libraries.*

#### GENERAL SUMMARY.

The Kingdom, or rather Republic, of Poland<sup>1</sup> (*Rzeczpospolita Polska*) disappeared from the commonwealth of nations, after an existence of eight hundred years, at the end of the last century. The dismemberment of the Republic, which in the sixteenth century was the greatest power of eastern Europe and had for centuries served as a bulwark

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<sup>1</sup> "Poland," says Lelewel, one of her greatest historians, "is a veritable and pure Republic, only invested with the forms of a constitutional monarchy." The principal character in the constitution of the Polish Government was a very decided separation between the executive power intrusted to the King, and the legislative power, superior to the former and exercised by the nation, i. e., the representatives of those citizens who alone enjoyed political rights, the nobility and the clergy. These deputies, *nuntii*, about 200 before the partition, and the senators, elected by the King, could assemble either separately or combined, thus forming but one Chamber, the Diet (*Seym*), *generale omnium terrarum conventum*.



against the destructive invasions into Europe of the Mongolian, Tartar, and Turkish hordes,<sup>1</sup> was accomplished by Russia, Austria, and Prussia in three partitions (1772, 1793, 1795). The parts which once constituted the Republic of Poland are still integral parts of the three countries respectively. According to Morfill's words, "Its limbs, although distorted, are still instinct with life;" its language is still spoken by upwards of ten millions; its literature is the oldest Slavonic literature next to Bohemian, and surpasses in importance and scope all the other Slavonic literatures taken together, i. e., Bohemian, Servian, Croatian, Slavonian, Russian, Bulgarian.<sup>2</sup> Its institutions and laws have perished, some of them fortunately for the broad masses of the Polish people who had nothing but the patrimony of the disinherited, serfdom. Austria at once introduced into Galicia the Austrian civil code; in the Prussian Polish provinces the Prussian Landrecht prevails. Russia alone permitted to the Kingdom (tsarstvo) of Poland a shadow of self-government and many privileges. Alexander I conferred great privileges upon the University of Wilno, confirmed the Lithuanian statutes in the western and southwestern governments and the code of Napoleon in Poland proper from the year 1807. But all this was changed into Russian law by a ukase of June 25, 1840. Yet in spite of the difficulties and restrictions under which the dismembered country labors, there are several very active centers of Polish literature, culture, and education, foremost among them Cracow and Lemberg, thoroughly Polish, excellent universities in Austrian Galicia. The work of the Academy of Cracow, founded in 1872, is of such a high standard of excellence, its editions of the Polish authors of the golden age (1541-1606) are so valuable, the many learned reviews that appear in Polish, equal to the best in other civilized countries, present so much original research and material that it is only a question of time when Polish literature and culture as well as that of the other Slavonic countries will constitute an essential part of instruction in our universities to supplement the Germanic and Romance languages and literatures.

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<sup>1</sup>In the reign of Boleslas V (1227-1279) the frightful Mongolian invasion took place (1241). Although gaining a Pyrrhus victory at the battle of Lignica (Liegnitz) in Silesia, they were diverted into Hungary after their force had been broken. Nothing since the battle on the Catalaunian fields can be compared with that carnage. In the fifteenth, sixteenth, and seventeenth centuries, the Poles went forth the champions of Christendom and rolled back the tide of Moslem conquest from Europe. Justly, therefore, Melancthon, speaking on this subject, says: "The magnanimity of this nation is especially displayed in their continual wars against the Tartars for the tranquillity of all Europe. For centuries she has protected Europe against the Tartars and the neighborhood of savage Asia. Let us never forget these obligations to Poland, and let us recollect who are the people, and in what regions of the earth they were made instruments of Providence, and by protecting Europe, enabled her to preserve within her bosom humanity, religion, and those arts and sciences so beneficial to society."

<sup>2</sup>According to Estreicher (*Bibliographia Polonica*, Cracow, 1870), it represents two-thirds of the entire Slavonic literature.

The University of Warsaw, although Russified to a great extent since the late insurrection, is still rich in national Polish spirit, learning, and culture. The Polish press of Warsaw still turns out many valuable books, magazines, and reviews in all branches of literature and science.

Prussia has best succeeded in Germanizing her Polish possessions, slowly eliminating or weakening the Polish element, "carefully avoiding any of those reprisals which would cause a European scandal." But "*der neue Kurs*," under the enlightened young Emperor William II, has thoroughly reversed the old theory, if not the old practice. Coercion has been reduced to a minimum, yet the German language makes more rapid strides than ever and does not suffer under the fact that Polish is cultivated in family and school, especially in the religious education of the people, who are mostly Roman Catholics. It seems as if the idea had won ground in the highest authoritative circles of Prussia that a people with an almost equally old western civilization, abundantly rich literature, language, and history, can not be weaned and severed from it by persuasion, force or police measures. Thus, while the provinces of Posen, Upper Silesia, and old Prussia have a by far greater German population and more completely Germanized Slavs under the admirable Prussian school system, the educational influence of three years' military training,<sup>1</sup> and the general high standard of Prussia's judiciary and administrative institutions, yet the Polish language and literature are extensively cultivated among the people by the Catholic Church, in the public schools by Polish teachers during the limited time that is allotted to their language, and in the higher schools for their intrinsic value and because it is a fundamental necessity for understanding the historical origin and development of all the provinces between the Elbe, or at least the Oder, and the Vistula. Indeed, the colonization by the German element of all that land is nothing but a protracted struggle, beginning as early as Charlemagne's time and not finished yet by far, to subject, to absorb, or to annihilate the Slavonic, principally Polish, population that has expanded over the territory vacated by the German tribes during the first migrations of peoples. For Leopold von Ranke's statement, "*Es sind zwei Völkerwanderungen, durch die der Umkreis der deutschen Gebiete aus dem inneren Germanien her bestimmt worden: die eine war nach dem Westen, die andere nach dem Osten gerichtet*," is absolutely correct. But while the Germanic tribes had pushed themselves forward toward the west and south in powerful streams and in a comparatively short period of time, the backward

<sup>1</sup> I venture this statement, which may seem paradoxical to those who are wont to consider the German military service as a waste of time and energy, removing hundreds of thousands of men from temporary production. But any military instructor who, like myself, has had an opportunity of observing many Polish recruits who come to the army as alphabets and leave it with a good equipment of German education, an enlarged horizon and excellent training, will surely agree with me.

flood toward the east against the natural course of Slavonic immigration occurred slowly, gradually, through many centuries, often interrupted by long pauses, historically not determined. While during the first migration Teutonic pagans pushed beyond the boundaries of Germania, it was Catholic Christianity, the victorious Roman Church, the monks, who accompanied the progress of the Germans; later on it was the Reformation which led thousands and thousands toward the East. It is, of course, not to be forgotten that a second main incentive was the craving for material wealth and worldly power which made such invasions very bloody, cruel, and unjust, full of epic battles and adventures so graphically described in Mickiewicz's *Konrad Wallenrod*, concerning the struggle between the Lithuanians and the Teutonic knights.

There is no Polish university in these Prussian provinces it is true, but Posen and Bromberg (Bydgoszcz), Danzig and Thorn, even Breslau, the capital of Silesia, and all the Upper Silesian towns, not to speak of its mostly Polish villages, have still very strong Polish traits and traces. The concessions made to Polish education especially and Slavonic languages and literatures generally, the importance attributed to these branches in Prussia appear from the strong Slavonic departments not only at the eastern universities of Breslau and Königsberg, but also at the University of Berlin. It is a very characteristic fact that for the first time, so far as I know, a scholar in Slavonic languages, the famous Wladyslaw Nehring, has become rector magnificus of the University of Breslau (1893-94).

Prof. Karl Brugman, of Leipzig, in *Die Deutschen Universitäten*, edited by W. Lexis, says in regard to Slavonic philology in Germany: "Slavonic philology, that bloomed up in the countries of the Austrian Crown and is about as old as Germanic and Romance philology, can naturally not have such a broad ground in Germany as its sister disciplines. It has at present three full professorships, in Breslau, Leipsic, Berlin, occupied by Nehring, A. Leskien, whose principal merits lie in the domain of Slavonic grammar, and A. Brückner.<sup>1</sup> Besides the great successor of Miklosich (d. 1891), V. Jagić, who, besides an extraordinary many-sidedness in literary production, has done an exceedingly meritorious work in grammar as well as in editing revised texts and investigating topics of literary history, was at the University of Berlin for several years (1874-1880). The latter is the founder of the *Archiv für slav. Philologie* (founded in 1875), the central organ of that science."

As for the important rôle that the Slavonic element has been destined to play in German life, it appears from the history and literature of Germany, which are quite permeated with its influence, German historians never grow tired of showing the contrast of the two national characters; German poets and authors compare and contrast their

<sup>1</sup> In the research of the Baltic-Slavonic languages, the works of Leskien, A. Bezzenberger (Gottingue, Königsberg), and A. Brückner (Berlin) are foremost.



traits and peculiarities, their ideals of education and culture. No one has done it better from a German point of view than Gustav Freytag, himself born on the frontier of Upper Silesia and Russian Poland, at Kreuzburg, in his *Soll und Haben*, and especially in his classical historical novels *Die Ahnen* and *Bilder aus der deutschen Vergangenheit*.

#### PLAN AND ARRANGEMENT.

It is my particular task to give a report on the higher education in the different parts of Poland, and with special reference to the shaping of the methods of instruction and organization on the part of the three Governments, Russia, Austria, and Prussia, with a view to assimilating the Slavonic population to the Government policies, social traditions, and civilization of the three nations respectively.<sup>1</sup>

For this undertaking it is necessary, first, to define more accurately the limits of the Kingdom of Poland at the time of her prosperity and of her decadence, while yet independent among the European nations; second, to give a sketch of the development of her educational facilities in the way of higher institutions of learning and universities during the period of her independence. Only from a comparison of her educational conditions while independent can we ascertain and realize her progress or retrogression in higher education after her partition, the changes wrought for good or for evil, the assimilation to or reaction against foreign influences, the transmutation of political and social ideals, the participation of the different classes in an education which is partly not their own, inoculated with ideals conceived by her conquerors in order to bring her children to a gradual mental and intellectual as well as physical subjection.

#### EXTENT OF POLAND.

At the period of her greatest prosperity under the later Jagiellos, Sigismund I, Sigismund II Augustus (1507-1572), the short interregnum and the brief nominal reign of Henry of Valois (1575), and the valiant Stephen Batory (1576-1586), Poland extended from the Baltic to the Black Sea, touching it at Akerman; from Bohemia, Moravia, Austria proper, Hungary, and the Danubian principalities to Russia beyond the Dnieper. The greatest length of the country from north to south was 713 English miles, and from east to west 693 miles. It embraced an area of about 282,000 English square miles, and this area in 1880 had a population of 24,000,000.

For our investigation, however, which concerns Polish soil and

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<sup>1</sup> The present monograph is a summary of a more extensive work on Higher Education in Poland now in course of preparation, and to be published later through the regular channels of trade. The author begs to acknowledge assistance from Senator Michael Kruszká, of Milwaukee, on Galician secondary schools, and receipt of valuable printed material from the pedagogical and geographical societies of Lemberg.



Polish people proper, we must exclude all the country which was not Polish in spirit and nationality, though at certain times it belonged to the republic by conquest. Thus that part of Kijowska which lies beyond the Dnieper, including the famous old city of Kief, one of the cradles of Russia, was ceded by the Crown to the latter country by the treaty of Andruszowo, 1667, and was never gotten back. Kief is consequently a purely Russian university, which will find no place in our treatise on higher education in Poland.<sup>1</sup>

Anatole Leroy-Beaulieu, in his unsurpassed work, *The Empire of the Tsars and the Russians*, has best expressed this idea, saying: "Separated from Great Russia at the time of the Tartar invasion, Little Russia was through five centuries subject to Poland and Lithuania, not to much purpose. Only the polished surface—the nobility of Kief, Volhynia, Podolia—became Polonized. It is owing preeminently to the Greek orthodox rite that the bulk of the people, the immense majority of the inhabitants of Kief and Ukraïna, have turned out quite as Russian as the people of Moscow." Leroy-Beaulieu's clever translator, Zénaïde A. Ragozin, shows in a footnote (I, p. 118) that the statistician, Tshubinsky, who has published some very detailed statistical tables on this very subject, has found out that the Poles could not muster 100,000 strong in the above three governments put together. Even making allowance for some exaggeration in the Russian documents, still so much remains that the figure of the genuinely Polish population is extremely low. In those three governments the number of Catholics, among whom there certainly are non-Polonized Little Russians, amounted to scarcely 400,000, or less than a seventh of the entire population (16.94 per cent). In these same three governments the number of Israelites rose to over 750,000. Unfortunately, Mme. Ragozin extends this calculation also to Lithuania and White Russia, i. e., to all the provinces annexed in one of the three divisions of Poland, without any statistical proof.

Smolenska also, with the important city of Smolensk, an object of strife between Lithuania, Poland, on one hand and Russia on the other, was transferred to Russia forever by the treaty of Andruszowo. Nor was Inflanka, or Livonia, with the old Hanseatic city of Riga, though acquired by Poland in 1561, ever Polish in spirit, or sympathy, or civilization.

Poland, in the strict sense of the term, also called the Crown of Poland (Korona), consisting of Great Poland (Wielkopolska) with the principal cities of Posen (Poznań), dating from the earliest period of the Republic, and Warsaw (Warszawa), which became the capital of the country as late as the reign of Sigismund III, and of Little Poland (Małopolska) with the famous old capital Cracow (Kraków), was united with Lithuania (Litwa) by the marriage of Jadwiga, the Polish

<sup>1</sup> We shall, however, learn later that this university, after the suppression of Warsaw, was the greatest resort of Polish students.

queen, with Jagiello, duke of Lithuania (1386); a more complete federation taking place at Lublin in 1569. The capital was Wilno; the official language of the country was White Russian, in which tongue its laws were promulgated. With this union Christianity was introduced. A Polish university was founded at Wilno by Stephen Batory under the care of the Jesuits (1578), which for centuries exercised its Polish and Roman Catholic influence upon the country, until it was suppressed by Emperor Nicholas I (1833) after the outbreak of the Polish insurrection of 1830, and the University of Kharkof founded in its stead.

As to a more accurate division of the *Rzeczpospolita Polska* in Palatinates (*Wojewódstwa*) for administrative and military purposes I may safely refer the reader to Morfill's *Story of Poland* (pp. 1-11), who follows Michael Bobrzyński's "*Dzieje Polski w Zarysie*," Warsaw, 1881, Vol. II, p. 363.

#### THE POLES AND THE DISMEMBERMENT.

This country was from time immemorial<sup>1</sup> inhabited by Slavonic tribes belonging to the great Indo-European or Aryan family of peoples. The early Slavs are said by the best historians to have been a peaceful agricultural people living under a patriarchal Democratic rule, without priests or kings, but the invasions of Asiatic hordes and the conflicts with the German tribes compelled them to adopt a sort of monarchical government. But the origin of Poland is fabulous;<sup>2</sup> history but begins with the reign of Mieczyslaw I and the introduction of Christianity in the Latin form under him (965), thus placing Poland at the outset in contrast to Russia, whose civilization was to be Greek in the Byzantine form.

Šafařík finds the first mentioning of this people in the Geography of Ptolemy, who lived in the second century A. D. They are here mentioned under the name of Bulanes. The generally accepted derivation of the name is from pole, field, plain, the country being one vast plain. Nestor, the old Russian chronicler, distinguishes between the Poliane Liakhove on the Vistula and the Poliane Rusove on the Dnieper, the dwellers on the Vistula plains and the dwellers on the Dnieper plains. Röpell, the excellent German historian of Poland,<sup>3</sup> has traced the devel-

<sup>1</sup> That is after having branched off from their original Iranian or Indo-European home in Asia, they immigrated into Europe at a period contemporaneous with or rather after the arrival of the Teutonic families. But an autochthonous origin in Europe for the entire Indo-European race has been also maintained by such scholars as Penka and Schrader (*Origines Ariacæ*, Vienna, 1883), *Sprachvergleichung und Urgeschichte* (1885). Morfill has given a very excellent abstract, sifting the frequently conflicting views of the best Slavonic scholars on the Slavonic origin. (See Article "Slavs," *Encycl. Brit.*, Vol. XXII, pp. 145-147.)

<sup>2</sup> Lelewel, the great Polish historian, has relegated all the period of Polish history from the earliest times to the reign of Mieczyslaw to the era of myths.

<sup>3</sup> The standard history of Poland by Röpell has been continued by Caro, both professors of the University of Breslau.

opment of the various divisions of society among the Poles back to their origin, showing how the nobility, *szlachta* (probably derived from the German word *Geschlecht*), became in course of time the Polish nation properly so-called, subjecting the *cmietones* (*kmieci*), an originally free class of peasants, and the peasants strictly so called (*chłopi*), to absolute bondage. When in the course of history also the power of the king was gradually diminished to a mere shadow by the *pacta conventa*, the military *szlachta* became the sole and almost absolute bearer of the power of the state. In this fact lies the germ of Poland's destruction, which became realized when the "*Adelsrepublik*," as Röpell calls it, had no other basis than a degraded aristocracy fallen from their old lofty patriotism, a national middle class being absolutely wanting, the trade of the country being almost entirely in the hands of foreigners, or people with foreign proclivities, Germans and Jews.<sup>1</sup>

So the dismemberment began. In 1772 Prussia took the Palatinates of Malborg (Marienburg), Pomeria (Pomerellen), Warmia (Ermeland), Culm, except Danzig and Thorn and a part of Great Poland; Austria took Red Russia or Galicia, with a part of Podolia, Sandomir, and Cracow; Russia took White Russia, with all the part beyond the Dnieper. The territories seized by the three powers amounted to 13,000 English square miles, 416,000 inhabitants; 27,000 square miles, 2,700,000 inhabitants; 42,000 square miles, 1,800,000 inhabitants, respectively.

But in spite of many fruitless attempts to amend the new constitution, promulgated May 2, 1791, a second partition by Russia and Prussia took place in 1793, appropriating to Prussia the remainder of Great and a portion of Little Poland (22,000 square miles with 1,100,000 inhabitants), and advancing the Russian boundary to the center of Lithuania and Volhynia (96,000 square miles, 3,000,000 inhabitants).

In the third and last partition Austria participated, taking Cracow, with the country between the Pilica, the Vistula, and the Bug (18,000 square miles, 1,000,000 inhabitants); Prussia had the capital, with the territory as far as the Niemen (21,000 square miles, 1,000,000 inhabitants); Russia took the rest, amounting to 43,000 square miles, 1,200,000 inhabitants.

During the general European upheaval at the time of the Napoleonic wars waged against Prussia and Russia (1806-1807) and Austria (1809), when the Poles rallied round him a faithful army of patriots, Napoleon established the Duchy of Warsaw by the treaty of Tilsit (1807), chiefly out of the Prussian share of Poland, with a liberal constitution and the Elector of Saxony at its head. The duchy, under the guidance of Prince Joseph Poniatowski, wrenched western Galicia from Austria

<sup>1</sup>Of course the nobility of Poland differed entirely from the feudal nobility of the rest of Europe. The former sprang originally from among the country people. There were in Poland many villages, inhabited by a population of nobles only, who were as poor as the peasants, yet enjoying the same political rights with the wealthiest magnates.



(1809) after the defeat of the latter at Austerlitz. But with Napoleon's sinking star the grand allied army in 1813 put an end to its existence. After the cessions by Austria in 1809 the duchy contained 58,290 English square miles, with about 4,000,000 inhabitants.

The division of Poland was rearranged by the congress of Vienna in 1815. The original shares of Prussia and Austria were diminished. Prussia was to have Posen and what she had gained at the first partition. Austria was to have Galicia and the salt mines of Wieliczka, while the city and district of Cracow were to form an independent republic under the guarantee of the three powers, and were seized by Austria only in 1846 after a violent insurrection. The remainder of ancient Poland, comprising the chief parts of the recent Grand Duchy of Warsaw, reverted to Russia, and was to form a constitutional kingdom subject to the Czar.<sup>1</sup>

The country we have to deal with in our report, as finally arranged, is as follows:

Russian Poland, since 1867, for administrative purposes, is divided into 10 governments, viz:

| Governments.  | English square miles. | Population. | Governments. | English square miles. | Population. |
|---------------|-----------------------|-------------|--------------|-----------------------|-------------|
| Kalisz.....   | 4, 400                | 774, 759    | Radom.....   | 4, 762                | 644, 827    |
| Kielce.....   | 2, 890                | 622, 842    | Siedlee..... | 5, 527                | 622, 465    |
| Łomża.....    | 4, 677                | 538, 588    | Suwałki..... | 4, 847                | 603, 174    |
| Lublin.....   | 6, 506                | 860, 382    | Warsaw.....  | 5, 613                | 1, 314, 269 |
| Piotrków..... | 4, 720                | 837, 928    |              |                       |             |
| Płock.....    | 4, 209                | 538, 141    | Total.....   | 48, 151               | 7, 357, 375 |

Prussian Poland, including Posen, most of Western Prussia, and several districts in Eastern Prussia; 26,000 square miles, 3,000,000 inhabitants.

Austrian Poland, including Galicia, Lodomeria, Bukovina, and Zipsete; 35,500 square miles, 5,000,000 inhabitants.

If we exempt the German, the Armenian, the Ugro-Finnish, and Jewish elements, the bulk of the Polish population proper, according to the calculations accompanying the ethnological map of Mirkovich (1877), amounts to 4,633,378 in the Russian Empire; 2,404,458 and 110,000 Kashubes (Kassuben) living on the coast of the Baltic near Danzig, in Prussia, and 2,444,200 in Austria. Besides these there are 10,000 in Turkey. These figures give a gross total of 9,602,036. (Morfill, *Story of Poland*, p. 12.) This calculation is very moderate, and I am inclined to put it at a rather higher figure. Kropotkine, in his excellent article on Russian Poland in the *Encyclopedia Britannica* (ninth edition), numbers in Russia, outside of Poland proper, about 1,162,050 Poles in 1881.

<sup>1</sup> This Kingdom of Poland, or Congress Poland (Kongressówka), alone constitutes the whole of Russian Poland in the eyes of the Russians, who refuse to recognize as Polish the provinces annexed by Catherine II.



The prevalent religion among the Poles is the Roman Catholic, to which in Russian Poland 4,596,956 out of a population of 6,034,430 belonged (1870). Since the last insurrection a series of measures have been taken to reduce the numbers of the Roman Catholic clergy in Poland. In 1883 there remained 1,313 churches out of 1,401; 1,544 priests out of 2,322; 10 monasteries out of 29, and 8 convents out of 30; one diocese (Podlasie) having been abolished, and a new one established at Kielce, while several bishops had been sent out of the country. The whole situation remained unsettled until 1883, when the Pope recognized the new diocesan subdivisions introduced by the Russian Government. Poland is now divided into four dioceses—Warsaw, Sedomierz, Lublin, and Plock. (Kropotkine, Poland, Vol. XIX, pp. 309, 310.)

The Austrian Poles enjoy absolute religious freedom under their Apostolic Emperor of Austria, as well as a practical self-administration of their schools in an entirely national Polish spirit.

In Prussia, too, after the discontinuation of the "Kulturkampf," perfect religious peace has been restored. At the old bishopric of Posen-Gnesen (Poznań-Gniazno), founded by Mieczyslaw with the aid of St. Adalbert of Prague in 968, a Polish archbishop, Stablewski, has been inaugurated and confirmed by the German Emperor to further and enhance the union and harmony between the Roman Catholic Poles and their Lutheran German brethren. This was an act of far-reaching, ideal, and political importance—an acknowledgment of the Poles in Prussia and their claims as to freedom of language, religion, and a sort of home rule, of course within the principles of true Prussian citizenship and loyalty. The fact that a Polish archbishop occupies the seat of St. Adalbert, who for a short time was the second archbishop of Gnesen, before he went out to preach the gospel among the heathen Prussians<sup>1</sup> and suffered martyrdom, is a provisional solution of the Polish question, the more favorable to the Poles as it thoroughly reverses the former policy instituted against them.

On the whole, no retrogression of the Roman Catholic religion in Poland is going on outside of Russia. According to Lelewel the population of Poland in 1764 was subdivided as follows in the way of the different cults: Catholics, 7,000,000; United Greeks, 1,500,000; Protestants, 1,000,000; Orthodox Greek-Russian, 2,000,000; Jews, over 1,500,000; Mahometans, 50,000; Armenians, 30,000; Mennonites, 20,000; Jewish Caraites, 20,000.

While the Roman Catholic religion is normally growing in Prussian Poland, and especially in Austrian Poland, several millions of Russian Poles have since the last century been converted to the Orthodox Greek religion, owing to the political and social advantages arising therefrom and the prodigious spread of Orthodox Greek churches over the country.

<sup>1</sup> It is a curious historical incident that the heathen Prussians, who, with the Letts and Lithuanians, belonged to the Litu-Slavic family, for which Leskien has proposed the generic name "Baltic," should have given their name to that power which forms the bone and marrow of the German Empire.

## LANGUAGE.

The language in which the vast and rich treasures of Polish literature are stored belongs to the western branch of the Slavonic tongue. To this branch belong (1) Polish: Masovian or Mazurian, Great Polish, Kashubish, and the upper Silesian dialects, which have very much degenerated (*Wasserpölnisch*). (2) Bohemian: Czechish, Moravian, and Slovakish. (3) Lusatian Wendish or Sorbish, which is gradually dying out and will soon be extinct like Polabish.

The dialect of Great Poland has become the literary language, rich and powerful, flexible and sonorous, no Indo-European language except Sanscrit presenting such a variety of inflections and sounds to mold it according to all emotions that may pervade man's breast. But this language has been deteriorated by foreign unassimilated elements that have crept in, just as German was impaired by the invasion of French in the seventeenth century. When large colonies of Germans began to settle in Poland after the Mongolian invasion (1241), which had widely devastated the country, and to build many German towns, and usurped nearly the entire trade of the country, for which the Poles never had either inclination or talent, a large stock of German words poured into Polish, giving it a strange alien aspect. As these Germans enjoyed, among many other privileges, their own laws also, the *Jus Magdeburgicum*, a "*Sonderstaat im Staate*," existed up to Casimir the Great's time, influencing also their judiciary organization.

With the reign of Sigismund III (1589-1632) the continuous wars and invasions of Poland and an all-pervading, very poor church Latin contributed considerably to bring about a degeneration in the Polish language and literature which threatened to suffocate the national idiom. The latter lost a great deal of its purity by the entrance of bad taste and macaronism. Theological dissertations in the manner of the decadence of scholasticism and affected panegyrics supplanted original invention and did the language itself untold harm. Yet a poet like *Sarbiewski*, who, according to *Hugo Grotius*, "did not only equal but surpassed *Horace*," and the poetess *Elizabeth Druzbatska*, show such purity of style and grace, such delicacy of thought and taste, that the inroad of all macaronism and pedantry in speech and literature could not stamp out the slumbering force of the Polish language. Still many unnecessary Latinisms disfigure the Polish language, which is not strange, since this macaronic period can be said to have lasted from 1606 to 1764. Yet, in flexibility, richness, power, and harmony, Polish is not excelled by any other language in Europe; its grammatical structure is fully developed and firmly established, its orthography precise and perfect. *Morfill* rightly quotes the poet *Casimir Brodzinski's* beautiful and expressive characterization of his native tongue:

Let the Pole smile with manly pride when the inhabitant of the banks of the Tiber or Seine calls his language rude; let him hear with keen satisfaction and the

dignity of a judge the stranger who painfully struggles with the Polish pronunciation like a Sybarite trying to lift an old Roman coat of armor, or when he strives to articulate the language of men with the weak accent of children. So long as courage is not lost in our nation, while our manners have not become degraded, let us not disavow this manly roughness of our language. It has its harmony, its melody, but it is the murmur of an oak of three hundred years, and not the plaintive and feeble cry of a reed, swayed by every wind.

It would be impossible to give a fair idea of the grammatical structure of the language in a short survey of its phonetics, forms, and grammatical differences from the other sister languages. But a few hints at its nature may induce some reader to take recourse to one of the many excellent Polish grammars; besides, it may be considered necessary to have at least a vague insight into the language which was the basis of the educational system of a great realm and is still the medium through which education, culture, and the history and literature of a great past is inculcated in 10,000,000 souls.

*Its structure.*—The Slavonic languages, it should be first noticed, do not differ from one another to such an extent as, for instance, the Teutonic or even the Romance languages. A Slav<sup>1</sup> who knows his language to perfection will, I dare say, always be able to understand and to make himself understood among the other peoples of his race or at least of his subdivision (Southeast and West). The Low German dialect of Holstein and the Swiss dialect certainly differ very much more than Polish, Bohemian, and Lusatian.

The principal changes in the various Slavonic languages have been brought about under the destructive influence exercised by the vowel *i* and the semivowel *j* upon the preceding consonants. Thus many mutes were reduced to mere hissing sounds; hence comes this characteristic sibilation so frequent in the Slavonic languages, though not equally so in all of them.

The apparent heaping of consonants, especially at the beginning of syllables, by which so many are deterred from studying the languages, fearing the impossibility of pronouncing them, is really no heaping at all. Many of these consonants are liquid, and if not, they become liquid (*mouillé*) by very pure and sonorous vowels following them to modify any harshness that may arise. This prejudice against the harshness of the Slavonic languages has been largely created by the uncomfortable orthography in the Polish language, which frequently expresses one sound by a combination of two, nay, four consonants; thus Polish *sz*, *cz*, *szez* are expressed in Russian by one sign. Though not harsh, Polish has more hissing sounds than any other Slavonic language.

<sup>1</sup>The name of the Slavs properly means illustrious, glorious; *slava*, *slavitsa* (old Slavonic), glory; *slavinu*, glorious; Lithuanian *szlowe*, glory, derived from old Slavonic *sluti*, to hear; church Slavonic *slysza*, I hear; *sluch*, the reputation; modern Russian *slyszat*; Polish *słuchać*, to hear, also in the sense of *bene audire*. Hence Russian *Slavjanin*, *slavjanskij*; Polish *Slowianin*, *Slowjanski*; Czech *Slovan*, *Slavsky*, for Slav, Slavonic.



In regard to grammatical forms the Slavonic languages are infinitely superior to the Germanic and Neolatin languages. They are closer related to the synthetic languages, the nouns having no articles (but, of course, demonstrative pronouns), and the verbs being almost always conjugated without personal pronouns.

The Polish language has a most elaborate declensional system, comprising seven cases, by which the use of prepositions is limited and a great freedom of position of words insured in the sentences. Like Sanscrit, it possesses the nominative, genitive, dative, accusative, vocative, instrumentalis, locativus, wanting only the ablative. The noun has one of the three genders, but has lost the dual, which still exists in the Masovian dialect. It also has more diminutives and augmentatives than either Latin<sup>1</sup> or Italian.

The adjectives have diminutives and augmentatives besides the three degrees, as, for instance, *mały*, small; comparative, *mniejszy*; superlative, *najmniejszy*; diminutive, *malutki*, *malenki*; *zielony*, green; *zielonawy*, greenish.

The verbs, by means of the so-called "aspects," have very delicate distinctions of meaning in the conditions of time, and even gender, quite unknown in the other modern languages. They have causative, iterative, inceptive, perfective, durative, participial, etc., forms, which contribute a great deal to the lucidity of grammatical constructions. Every root word thus becomes, according to the great philologist Schleicher, the germ of a largely ramified tree of derivative forms, each of which expresses a different sense. There is a creative vitality in their forms infinitely superior to the rigid, decrepit crystallization of the Germanic and Latin languages, as Schleicher puts it.

Less remote from Palæo-Slavonic than Russian, for instance, it has preserved some peculiar characteristics of the mother tongue, among them a (pronounced like French *salon*) and e (*satın*).

Ż is another consonant which does not exist in any other language.

It is similar to ll in Spanish, and has a peculiarly broad and thick sound.

The phonetic wealth of the language is expressed by 35 consonants, 9 vowels, and 1 letter j, which is considered to be a semivowel and semiconsonant.

The accent, except in foreign words and in compounds, which are exceedingly rare, is constantly on the penultimate—*ródak*, countryman; genitive, *rodąka*; dative, *rodakówi*.

In Polish words the syllable with the vowel which has the tonic accent is long; the other syllables are short. Thus the Polish language combines the advantages of the prosody of ancient poetry with those of the rhyme of modern; it possesses all the varieties of poetical forms from the Latin hexameter to the French Alexandrian verse.

<sup>1</sup> That means a good deal when we consider such diminutive possibilities, like *cista*, *cistula*, *cistella*, *cistellula*.



The Polish language [says Schleicher] distinguishes itself among the other Slavonic idioms particularly by a varied and manifold softening of the consonants. This delicate expression of sounds, produced by the continual variations of the same consonants, makes this language very difficult for the foreigner; but in the mouths of educated Poles it is not harsh at all.

Among the Indo-European languages the Germanic languages possess not one softened (modified) consonant; the Romance languages but one—softened *n* (*gn* in French and Italian, *ñ* in Spanish); the Slavonic languages have several consonants of that kind. Polish, though harsher than several among them, has the most.

The total of words in the Polish language amounts to about 100,000, a great number among them being, as in the Neolatin languages, composed of verbs or nouns preceded by prepositions. The words composed of substantives and verbs or two substantives, so common in German, are very rare in Polish. Almost all the feminine substantives and adjectives in Polish, as in the other Slavonic and in the Neolatin languages (except French) have the termination *a*; and the great number of Polish words terminating with vowels serve to soften the harshness of the language indisputable in other respects.

On the whole, however, we may adopt Schnitzler's statement:

Original, flexible, sonorous as it is, Polish is as rich in forms as it is in words, so that it easily expresses all the ideas to be conveyed and adopts all possible sounds. One may say that Polish is a scholarly language, which has been elaborated, polished, refined by numerous authors, some of whom, men of first order, are justly counted by the Poles among their titles of glory and as a compensation for their political disasters.

Such an account of the most striking characteristics of the language may appear as a digression from my theme, but the language spoken by the people is the very skeleton upon which the structure of their education is built. And as their language is practically unknown with us, it seems to me an indispensable preliminary step to my treatise on the higher education in Poland.

#### SKETCH OF THE HIGHER EDUCATION IN POLAND DURING HER INDEPENDENCE.

The introduction of Christianity into Poland under Mieczyslaw, or Mieczko, to use the abridged form of his name, took place as already stated, in its Latin form. The Latin alphabet was adopted, and the Latin language became the sacred language of the nation. From the church, Latin soon penetrated everywhere, into the schools, the administration, the tribunals, and the domain of history and letters.

The exclusive use of Latin as the literary language during several centuries arrested in Poland all progress and all development of the national language, and, worst of all, debarred the broad masses of the people from participating in the literary movement of the time. But, on the other hand, the knowledge of Latin was soon followed by reading the books of the clerical and secular authors who rapidly spread over Poland. Thus the bad results of "Latinomania," of which

some Polish writers so bitterly complain, were partly compensated by the intense literary aspirations of the higher classes.

Mieczko's successor, Boleslaw the Great (992-1026), in order to spread Christianity more effectively among the Poles, invited some Benedictine monks from France and founded monasteries on Lysa Gora, at Sieciechowa, and Tyneć, and around the monasteries schools of various kinds arose, just like the "Klosterschulen" in Germany under Charlemagne.

From the eleventh century on [says Leonard Chodźko] libraries were established in Poland. In 1166 the historian Matthew Cholewa, bishop of Cracow, incessantly quotes the *Digesta* and the *Institutiones Romanæ*, which had been discovered in Italy about 40 years before. Also quotations from the Roman historian Valerius, all traces of whose works have since been lost, are found in the Latin chronicles of that Polish bishop. The Polish schools and libraries in the twelfth century were in the same flourishing condition as those of the Latin races.

Jan Długosz (Longinus), the famous canon of Cracow (1415-1486), in his most important Latin chronicle, extending from the earliest periods of his country's history to his own time, speaks of Polish schools that were said to have existed in Poland during the eleventh century.

At the end of the thirteenth and the beginning of the fourteenth centuries the young Polish students frequented the universities of Padua, Bologna, and Paris, in which several of their compatriots, as Nicolas of Cracow, Jan Grot de Huplé, and Przesław, were installed as professors and even rectors.

There was even a dim, flickering light of natural science awakening in Poland, inasmuch as the mathematician Ciołek (Vitellio), who lived in the second half of the fourteenth century, became one of the originators of the science of optics.

The reign of Casimir the Great (1333-1370) marks the dawn of a new era in the literary, educational, and political history of Poland. This King, who at the diet of Wislica, in 1347, had the celebrated statute of Wislica enacted—the first monument of Polish jurisprudence, and a code destined to rule the Kingdom according to principles of higher statesmanship<sup>1</sup>—is the founder of the University of Cracow.

*Ancient foundation of the University of Cracow; its early history.*—The city of Cracow had become prominent as the capital under Ladislaus Lokietek (lokietec, an ell), who was the first monarch crowned there. Under his great son and successor, Casimir III, Cracow (also Danzig) became a member of the Hanseatic League.

In 1364 the foundation of the University of Cracow was laid in the

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<sup>1</sup> The most eminent Polish jurist, Francis Wolowski, states concerning the statute: "One is struck with astonishment at the thought that this first Polish code, remarkable by its wisdom and the clemency of its dispositions, precedes by nine years the celebrated golden bull of Emperor Charles IV of Germany, which in relation to its penal legislation still breathes to a high degree the barbarities of the Middle Ages." In the statute there is a strong attempt to raise the wretched condition of the "misera contribuens plebs," which procured for Casimir the title of honor of "the peasants' king" (Król chłopów).

village of Wawel (now Kazimierz, the suburb of Cracow). Podezszynski maintains its creation in 1347, which date would make it the oldest university of the north and east of Europe. But Lelewel, the best authority, has put it in 1364,<sup>1</sup> and Friedrich Paulsen, in his admirable *Wesen und Geschichtliche Entwicklung der Deutschen Universitäten* (*Die Deutschen Universitäten*, W. Lexis, I, Berlin, 1893), states:

Prague and Vienna are the first founded German universities, the former<sup>2</sup> established in 1348 by the house of Luxemburg, the latter in 1365 by the house of Habsburg, both on the eastern side of the German domain of culture, apparently for the reason that Paris was near enough to the west, with which the oldest church institutions on the Rhine, especially Cologne, were closely connected. Only toward the end of the century did the west of Germany follow with the universities of Heidelberg (1385) and Cologne (1388, discontinued 1794), Middle Germany with Erfurt (1392, discontinued 1816). The dissolution of the University of Paris, owing to the great church schism, brought about the foundation of these three universities.

In Cologne, the old seat of scholastic education, Albertus Magnus and Thomas Aquinas, as well as the Minorite, Duns Scotus, had excelled. To replace Prague, lost to the Germans by the Hussite troubles, the University of Leipsic was founded in 1409, that of Rostock for the Baltic countries in 1419.

This digression is made to show that Poland was not behind Germany in her aspirations, at least for educational excellency, and was well nigh the first to found a university.

Organized after the model of that of Paris, the University of Cracow propagated in Poland all the sciences cultivated at that time in France, grammar, logic, metaphysics, the physical and mathematical sciences, jurisprudence, politics, morals, astrology, and music, i. e., a *studium generale* of the three faculties—law, medicine, and philosophy.

Thus, like the German universities, and preceding all but one, Cracow derived its origin from Paris, the first great university of the Occident, "*ex diluvio scientiarum studii Parisiensis*." Yet the independently created universities of Italy, especially that of Bologna, originating in a law school, must have exercised their influence upon Cracow. While, then, the oldest universities of France, Italy, Spain, and England date back to the thirteenth and with their roots to the twelfth centuries, the oldest Polish and the German universities take a contemporaneous start in the second half of the fourteenth century.<sup>3</sup>

<sup>1</sup> Perhaps he accepted as date the year 1364 because in this year Pope Urban V raised it to the rank of other similar institutions in Europe.

<sup>2</sup> The university was divided among four nations—Bohemians, Poles, Saxons, Bavarians. The spirit of rivalry among them was strongly manifested in the quarrels which took place between the national and the German party. A privilege granted to the Germans and revoked by Charles IV on the 6th of October, 1409, produced such discontent that all the German students left Prague, which caused the foundation of the University of Leipsic.

<sup>3</sup> At the same time a reform of education was begun among the lowest strata of the nation. Primary schools were established throughout the country admitting the children of the peasants as well as those of the nobles.



Of course, the University of Cracow had its vicissitudes and drawbacks. There was at first a lack of professors, and consequently no definite results of teaching were obtained. Under Casimir's successor, Louis of Hungary (1370-1382), the university came to a standstill, and the Polish students passed over to Prague, where they formed one of the four nations. The French and Italian universities were also frequented by many Polish students who later on obtained fame in their fatherland. But the plan of Casimir in regard to the University of Cracow was fully carried out by Queen Jadwiga and Ladislaus Jagiello of Lithuania. The statutes of the university were approved by Pope Boniface IX, its revenues raised by the Queen in 1397, and the institution transferred to the center of the city in 1400. Throngs of students from all Poland, Hungary, and Germany assembled there and carried its fame in all directions.<sup>1</sup>

Under the Jagiellons (1386-1548) the Polish language, so long displaced by Latin, began to reconquer its ancient privileges. It owed its success especially to the Hussites, who had entered Poland in order to recruit in favor of their doctrines from all ranks of society that could be reached only by means of the national language. The Polish humanists and reformers<sup>2</sup> also used Polish in their liturgies, printed in the vernacular catechisms, sermons, religious songs, employed it in their controversies, and thus forced their adversaries to reply in the same idiom.<sup>3</sup>

Printing began at a very early time in Poland (Estreicher, Polish Bibliography, Cracow, 1870). As early as 1475 we find a Silesian-Polish imprint in a Latin work, *Statuta Synodalia*. In 1476 appeared a work by Turrecremata (Torquemada), *Explanatio in Psalterium*, published in Cracow. Since that time the printing press has not stopped in Poland.

In 1491 Swiantopelk Fiol printed at Cracow a book of prayers in Slavonian, with Cyrillic letters. In the beginning of the sixteenth century, Haller, a citizen of Cracow, established the first regular book trade, employing at first foreign presses, namely, those of Leipsic and Nuremberg, but afterwards establishing his own printing office at Cracow. Haller rendered great services to the progress of literature in Poland by publishing himself many works, and by supporting other printers with advances of money and types, so that many new printing offices were soon opened at Cracow.

<sup>1</sup> Huss's fellow-martyr, Hieronymus of Prague, was called to Cracow in 1410, in order to help at the reorganization of that university.

<sup>2</sup> Kallenbach, *Les Humanistes Polonais*, Fribourg, 1891.

<sup>3</sup> A very interesting and most important transaction between Poland and Bohemia was the public disputation held at the University of Cracow in 1431 between the Hussite deputies of Bohemia and the Roman Catholic doctors of the university. The disputation was carried on in the presence of the King and the senate. Dlugosz, who relates that memorable transaction, says that the conferences were almost continually held in Polish. The fact alone that heretical tenets were suffered to be publicly discussed at the university is sufficient to prove the state of toleration at that time prevailing in Poland.



The first Polish book, a life of St. John Chrysostom, by St. Bonaventura, translated by Opec, was printed at Cracow in 1522, by Vietor; and in 1536 the Catechism of Luther was also published in Polish. The liberty of the press, established by royal ordinance in 1539, was sustained in spite of all attempts to suppress it during the fierce religious struggles raging at the time in Poland as well as in western Europe. Printing establishments were even increased in all parts of Poland, for the Reformers tried to spread their doctrines by the press, and their Catholic opponents to refute them by the same means.

The followers of the Greek Orthodox Church in Poland, whose spiritual center was in Kief and its famous Greek seminary until 1667, when lost to Muscovy forever, had also several presses of their own.

The religious struggles, fatal as they were in many respects, yet had a powerful influence on the development of the national intellect. Theological controversies compelled those concerned in them not only to be well versed in the Scriptures and the works of the church fathers but also in the ancient languages, Polish dialects, and many other kindred branches of human learning. Works not only of a religious and controversial but also of a literary and scientific character went forth in great numbers from the presses established in various parts of Poland. There were even many private presses established by nobles in their own houses; thus the Tarnowskis, Radziwills, Chodzkievich, and several other magnates possessed printing establishments. Bandke, in his History of the Press in Cracow, even enumerates 46 towns outside of Poland where the productions of Polish authors were also printed.

This glorious elevation of liberty of the press and education did not, however, last undisturbed. Under the reign of Sigismund III a kind of censorship was introduced by a royal decree of the 14th of October, 1621, prohibiting the printing or even the custody of any works whatsoever, but particularly those of a sacred character, without a license from ecclesiastical authority. The resolution adopted by the synod of Warsaw under the primate Lubieski (*De non imprimendis absque revisione et approbatione libris, ac revidendis ad minus semel in anno bibliothecis bibliopolisque*), which not only confirmed this royal decree, but extended the censorship by establishing an inquisitorial revision of libraries and booksellers' shops, became from that time a law, and its application was stringently adhered to. Under this law, which soon extended its sway over books of the past, excesses were committed, and a good number of the best productions of the golden age of Polish literature must have been irrevocably lost, and many became so scarce that even at our time some valuable unique copy is now and then found hidden away in the dust of old Polish libraries.

This short account of the Polish printing press may perhaps appear as a digression from our theme, but the universities and high schools of that time were so closely connected with the new printing facilities

that they can hardly be appreciated without the latter, being the most powerful engine for the dissemination of the truth and of all learning.

Thousands of students gathered at the University of Cracow in the fifteenth century from Ruthenia, Russia, Germany, Hungary, and Moravia. The first Ruthenian, Latin, Hebrew, Greek, and Hungarian books proceeded from its printing press. At the beginning of the sixteenth century it extended all over Poland. The number of books printed in Poland during the sixteenth century amount to 10,000 at a low calculation. More than 500 printing presses had been up to the end of the eighteenth century active in about 100 towns of the realm, 90 in Cracow alone.

One of the most interesting buildings in Cracow is the old Jagiello Library, with its quaint quadrangle. Here is stored a fine collection of books and many of the rarest treasures of the Polish press, early editions of the native authors. "In an album preserved in the library, with the names of visitors inserted, may be seen the autograph of Henry of Valois, Marini, Mniszek, the bride of the False Demetrius, and that of Anna Jagiellonka, the wife of the glorious Stephen Batory" (Morfill). All these treasures were turned to the advantage of the Jagiellon University.

Among the most famous students of this university at that period we must count the above-mentioned historian and chronicler, Jan Dlugosz; Jan of Glogau, who introduced Aristotle's philosophy into Poland, on which he wrote several works; Michael of Breslau, Jan of Oswięcim and scores of others. But none gave to his country such a luster of splendor and fame as Nicolas Copernic (Copernicus), born in 1473 at Thorn (Toruń), Prussian Poland, died the 23d of May, 1543. The great French scientist, Arago, says of his death: "*Il s' éteignit en tenant dans ses mains défaillantes le premier exemplaire de l'ouvrage qui devait répandre sur la Pologne une gloire si éclatante et si pure.*" A statue of Copernic, by the finest Danish sculptor, Thorwaldsen, adorns one of the public squares of Warsaw.

It is true Poland and Germany still dispute with each other the honor of producing him, a common fate of all great men in olden times; but this much is sure, that his father, a Polish subject, was a Slav, though perhaps Germanized, his native town having recently belonged to the order of the Teutonic Knights. His mother, as her name—Barbel Watzelrode—indicates, must have been of German extraction. Brought up under the guardianship of his uncle, Lucas Watzelrode, subsequently prince-bishop of Warmia, he matriculated at Cracow in 1491, and there studied mathematics, optics, and perspective. Leaving Cracow without taking a degree, he enrolled himself in 1496 in the "*Natio Germanorum*" of Bologna University as a student of canon law. The year 1500 he spent at Rome, where he lectured on astronomy and "observed an eclipse of the moon" on the 6th of November. The following year he began the study of medicine at Padua, medicine being

at that time essentially dependent on astrology. In 1505 he left Italy never to return to it, and settled in Prussia.

He is the founder of modern astronomy. The Copernican system is, mainly, the shifting of the center of the solar system from the earth to the sun, and the consequent explanation of the alternation of day and night by the earth's rotation on its own axis, and of the change of the seasons by the earth's revolution around the sun. For the rest, the glory of developing the lines so broadly laid down belongs to Kepler, Galileo, and to Newton, who finally marked out the form of modern theoretical astronomy.

Under Sigismund I (1507-1548) political struggles with the Tartars and Turks and the rising power of Russia strangely contrasted with literary achievements. His second wife, Bona Sforza, daughter of the Duke of Milan, though personally hurtful to her adopted realm on account of her intrigues and avarice, yet had a beneficial effect upon the country by the introduction of painters and artists of various kinds and Italian refinement to embellish the Polish court.

The new doctrines of the Reformation made their appearance in the country. The centrifugal forces began to tend in different directions; the Protestant towns of secularized Prussia, and still more the Polish towns proper that had adopted Lutheranism, gradually became estranged from Poland at the time when royalty was being weakened more and more, and the nobility with their unmeasured privileges spread the sphere of their influence ever farther.

But in the clash and conflict of diverging tendencies lay the germ and ferment of a higher educational and intellectual life. The influence of the Renaissance began to be felt in Poland, and when the classical models of Greece and Rome pervaded the national spirit of the Polish republic of letters the national language assumed an exquisite purity; its golden age and classical period began (1541-1606). But the University of Cracow had somehow degenerated, and King Sigismund, in order to raise its standard, in 1535 ennobled all the doctors and professors of the same, uttering the following grand words: "*Satius enim est gestis propriis florere quam maiorum opinione uti nec minor nobilitas est ea quæ propriis virtutibus comparatur*" (Morfill, Poland, p. 82).

But trouble soon began again. It may not be uninteresting as a piece of history of culture in Polish university life of that time to speak here at some length of an event by which the beginning of the reign of Sigismund Augustus was marked, and which, although insignificant in itself, was important from its consequences.

In 1549 a woman of ill repute, being publicly insulted by some students of the university who stood before the door of All-Hallows College, called to her assistance the servants of Czarnkowski, prebendary of Cracow and principal of this college. A scuffle ensued, in which some students were killed. This occurrence produced a universal commotion amongst all the students of the university, who entered



into a mutual obligation to obtain a signal satisfaction for the murder of their comrades. The whole body of the students went to the royal castle to supplicate for justice against the perpetrators of the murder, but particularly against Czarnecki, whom they accused of being the chief promoter of that crime. Samuel Maciejowski, bishop of Cracow, dissuaded them from thus marching to the castle, representing it as an insult to royalty, and promised to obtain for them full redress.

They retired from the castle, and, having confirmed their mutual obligation to prosecute the guilty, they chose one of their number to lead the prosecution. They declared also that if they should not obtain justice they would leave the university and even the country. The King granted an audience to a deputation of the students, who preferred an accusation, the violence of which shows the hatred which animated them against the ecclesiastical authorities and which waited only for an opportunity to manifest itself. The King blamed the riotous conduct of the students, and ordered the affair to be investigated by Samuel Maciejowski, bishop of Cracow, as chancellor of the university, a prelate distinguished by the mildness of his character and urbanity of his manner. The students did not appear before the judge, considering him as a partial one, and refused to prosecute their accusation. Czarnecki, having proven that he had not even been in the house when the tumult arose, was justly declared innocent, but the servants were imprisoned. As no accuser, however, appeared, there was no trial. The students resolved on leaving the university. It was impossible to use any coercion against such a resolution, and the authorities tried by conciliatory means to prevent its execution.

The students were invited to the Church of St. Francis, where they found assembled all the university, the bishop of Cracow, and Jan Tarnowski, the most respected grandee of his time. They were addressed by Tarnowski, who promised them the punishment of the guilty, and who was listened to with great attention; but when the bishop wished to speak he was interrupted and could not obtain a hearing. The students left the church with great tumult and resolved on leaving the city the following day. Cracow exhibited a mournful scene; nothing was heard but groans, lamentations, and parting farewells. The town lost the most animated and brilliant part of its population. According to the word of Zalasowski, a contemporary author, in his *Jus publicum Regni Poloniae*, "the schools became silent; the halls of the university were deserted; the churches were mute, and the oldest inhabitant of Cracow had never witnessed a greater calamity and a more general lamentation."

The emigrant students assembled together, heard mass in a church of the suburb Kleparz, and began their pilgrimage singing a sacred hymn. Some of them were persuaded to return, but the greatest part left the country and repaired to foreign universities. Most of these went to Silesia, where the celebrated school of Goldberg was at that



time in a very flourishing condition, under the direction of Frankendorf, the most eminent of Melanchthon's pupils. This school was already the favorite resort of many Polish students. The later royal family of Leszczynski was one of those who generally educated their children in that establishment. Many went also to the newly erected University of Königsberg, in Prussia, which was a Protestant stronghold under the duke, Albert of Prussia, who had adopted the reformed creed. No wonder, then, that most of them returned to Poland imbued with Protestant doctrines and as zealous propagators of such in their Catholic country.<sup>1</sup>

Yet, in spite of drawbacks and religious struggles, the progress of Polish literature and literary achievements went on.

Nicholas Rej (1505-1569)<sup>2</sup> opens the long list of great Polish poets, though his best work, *Zwierciadło albo żywot poczcivego człowieka* (The Mirror; or, The Life of an Honorable Man) was written in prose.

Martin Bielski wrote in Polish the *Annals of the History of Poland* and a *Universal Chronicle*, the first universal historical work that appeared in Europe. Great historians, philologists, jurists, scientists, and the most illustrious Polish poet, Jan Kochanowski, make us well understand that the sixteenth century was the golden age of Polish literature.

Another cause of this marvelous development is that merit was a veritable title of nobility. Talent could attain any office, however elevated.

Every bishop, every senator, every high magistrate [says Leonard Chodzko] owed at that time his elevation to his talents, and the son of a noble, a burgher, or a peasant found the same admittance. The historian Kromer, son of a peasant, and the poet Dantiscus, son of a brewer, rose consecutively to the bishopric of Warmia with the title of prince-bishops. Erasmus Ciolek, natural son of a wandering musician, became bishop of Płock. Janicki, son of a cartwright, obtained the poet's crown from the hands of the Pope. Cardinal Stanislas Hosius, one of the presidents of the Council of Trent, was born in Wilno, of very obscure origin.

We can infer from this what the condition of the schools in Poland at that time must have been.

Not only did the lower and middle classes produce highly educated men, but the nobles also rivaled in culture and education at a period when the nobility in France and Germany, with the exception of men like Franz von Sickingen and especially Ulrich von Hutten, were sunk in ignorance. The famous French historian, De Thou (Thuanus), speaking of the embassy of Polish nobles who came to offer the crown of Poland to Henry of Valois in 1572, says:

The most remarkable thing was their facility in expressing themselves in Latin, French, German, and Italian; these four languages were as familiar to them as their own tongue. There could be found only two men at the court who could respond in Latin, the Baron of Milhau and the Marquis of Castelnau-Maurissière. These had

<sup>1</sup> V. Krasinski, *The Reformation in Poland*, London, 1838, Vol. I, pp. 155-159.

<sup>2</sup> V. Krasinski, *The Reformation in Poland*, Vol. I, p. 161.

been dispatched expressly in order to sustain in this respect the honor of the French nobility that then blushed at their ignorance. And indeed it was a great deal for that time to blush at all. The Poles spoke our language with so much purity that you would have rather taken them for men born on the banks of the Seine or the Loire than for inhabitants of the regions watered by the Vistula or the Dnieper, which gave great shame to our courtiers, who know nothing and who are declared enemies of all that is called science.

Rightly indeed Erasmus of Rotterdam says of the Poles in his letter to Severin Bonar, "In that country philosophy possesses excellent disciples; there it forms those Polish citizens who dare to be scholars." The famous Muretus (1526-1585) also, when comparing the two nations considered the most polished and scholarly at that time, the Italians and Poles, asks himself:

Which of the two nations is the one that deserves to be praised more in regard to the sciences and arts? The Italians, the fifth part of whom hardly study Greek and Latin and show some taste for the sciences, or the Poles, a great number of whom perfectly know the two languages and seem to be animated by such an ardor for the letters that they devote their whole lives to them?

Under Stephen Batory (1576-1586), a powerful and well-meaning monarch, due regard was paid to letters and education. He founded for Lithuania the University of Wilno under the superintendency of the Jesuits, who, in order to counteract the spread of Protestantism in these Catholic countries, were now swarming into Poland in great numbers, and gradually became the masters of the educational system of the country. But this university was unfortunately at that time not a bulwark of the Polish or even White Russian language, which continued in use in judicial proceedings as late as the year 1697 in Lithuania, for Batory, originally a prince of Transylvania, can not be said to have had a strong inclination for the Polish language, and the Jesuits also by far preferred their church Latin. Šafařík even accuses Batory of having directly done harm to the Polish vernacular by favoring Latin too much at its expense. He also founded Jesuit colleges at Dorpat and Riga, Livonia having been united to the Republic in 1561,<sup>1</sup> and he proved an offensive foe to Lutheranism. A convent of Jesuits was founded at Riga under the direction of Laterna, Skarga, and Brückner, all three zealous propagators of Catholic restoration in Poland. Reproaches against these men that they were wanting in patriotism are certainly unjust and unfounded. Skarga's sermons, preached before the diet (Kazania Sejmowe, 1600), remind the Poles with ardent eloquence of the suicidal consequences of their disunion and reproach them for their utter want of unselfish patriotism. His funeral discourses at the burial of Batory's widow and the first wife of Sigismund III are not unlike those of Bossuet in powerful eloquence.<sup>2</sup> But violent riots followed the King's attempts to suppress Protestantism in Livonia, and a probable religious war was only averted by his death, when he

<sup>1</sup> Riga and Livonia were lost, however, by Poland to Sweden in 1621.

<sup>2</sup> Mecherzynski, History of Polish Eloquence.

was just about founding a university in Livonia, which thirty-five years later was lost to Sweden.

In Poland and Lithuania, however, Catholicism from this time on had the upper hand and molded the education of the country.

The University of Wilno was founded by Batory as the chief seat of the Jesuits in Lithuania, in the center of a population a large majority of which was Protestant and Greek. A great opposition arose against its foundation. Prince Radziwill, palatine of Wilno and grand chancellor of Lithuania, as well as the vice-chancellor, Eustachius Wollowitz, refused to fix the seal of the State to the charter for the university; but the King disregarded their representations. Also the diet of 1585 protested against the erection of the University of Wilno, and of the Jesuit college in the newly conquered town of Polock, deeming the sole authority of the monarch insufficient and unconstitutional. But the influence of the King prevailed over the opposition of the diet and the privileges of these foundations were at last confirmed. The University of Dorpat was founded by the Swedish King Charles XI, and became a bulwark of German learning. Only in these days is it becoming thoroughly Russianized; it has now even lost its old name, the Russian name for it being Jurjew.

But with the reign of Sigismund III (1587-1632), the continuous wars and foreign invasions, the bloody religious, external, and internal strifes, which retarded civilization in all eastern Europe for centuries, made a speedy end to that great period in Polish literary history. Foreign elements came up to take charge of the public instruction in the country in spite of the opposition of the University of Cracow. Briefly, the old maxim of "*Inter arma Musæ silent*" proved true again. The above-mentioned period of decadence, the macaronic period, set in, barely illuminated by a few superior lights. Polemical divinity, the principal subject of instruction in the schools, made the students lose their time in dialectic subtleties and quibbles. About 1618 the censorship was established in Poland, though contrary to a royal decree of 1539, which had proclaimed the liberty of the press. The first index librorum prohibitorum was published by the bishop of Cracow in 1617. The University of Cracow had a hard struggle with the Jesuits, who worked hard to get possession of this ancient seat of learning. They tried to establish a high school of their own at Cracow, which would have facilitated the final accomplishment of the object. This occasioned a violent quarrel between the Jesuits and the university, which was supported on that occasion by all the monastic orders. The issue was decided in favor of the university by the Diet of 1628, and a papal bull of 1634 prohibited its renewal.

The Jesuit schools spread over Poland, and the superintendence of national education was in their hands. Broscius (Brozek), rector of the university of Cracow, and the most learned man of his time in Poland, in a work published in Polish, about 1620, under the title *Dialogue*



between a Landowner and a Parish Priest, violently attacks their system of education.

The Polish language, which had attained a high degree of perfection during the sixteenth century, the Augustan-era of its literature, was soon corrupted by an absurd admixture with Latin and barbaric phrases, called "macaronic," which disgraced native literary productions for more than a century. Bombastic panegyrics, lavished on the most unimportant persons, became, toward the end of the seventeenth century, almost the only literature of the country—proof sufficient of the degraded state of the public to which such productions could be acceptable. A further proof of the intellectual degradation and the corruption of taste at that time in Poland is that the most classical productions of the golden era of Polish literature were not reprinted during a space of more than a century, although after the revival of learning they went through many editions and still continue to be reprinted. Thus the poems of Jan Kochanowski (died 1584) were printed several times before 1639; but from that year there was no new edition till 1767, which has since been followed by many others.

*Polish schools at the period of the Reformation.*—With the spread of Protestantism the need of Protestant schools was felt. Several general synods, chiefly those of Piotrkow (1578) and of Thorn (1595), acknowledged the necessity of establishing a general school of highest learning for all the Protestant confessions, and resolved to put such a plan into execution by means of a fixed tax on all the landowners belonging to them. This resolution was, however, never carried out, probably from the adverse circumstances of the Protestant denominations during the long reign of Sigismund III. The University of Königsberg might be considered in some respects as the Protestant school of highest order in Poland, at least as long as its founder, Duke Albert of Prussia, as Polish vassal, was guided by political and religious motives favorable to the Republic. Thus Königsberg, as well as the German and Dutch universities, was chiefly frequented by Polish Protestants who wished to receive that theological and other education which was necessary to qualify them for the office of Protestant ministers. They received, however, an education preparatory for those higher studies in properly Polish schools, supported by the various churches and Reformed magnates.

The most remarkable of those schools was that of Leszno, or Lissa, now in Prussian Poland, then the property of the illustrious family of Leszczyński. A member of that family, Raphael, having embraced Protestantism, gave the Roman Catholic church of Leszno to the Bohemian brethren (1550), and established there a school in 1555, which was much enlarged by his descendant, Andreas, palatine of Brest, in Kujawia, in 1604. From humble origins this school rose by the munificence of its owner, Raphael, palatine of Belsk, to be one of very high order for the Helveto-Bohemian confession. The city itself rose to a



high degree of prosperity by the immigration of many thousands of Protestants, who fled to Great Poland after the defeat of the "winter king" Frederick, palatine of the Rhine, at the battle of Weissenberg. Besides the ancient languages, universal history, geography, the Polish and German languages, mathematics, natural history, and other sciences were taught in that school, conducted by men of the highest learning, as Rybinski, Andreas Wengierski, the great naturalist Johnstone, and John Amos Comenius.

The latter, perhaps the greatest educator of all times, born in 1592, at Komna, in Moravia, whence he derived his name, driven out, as Protestant minister, from Bohemia and Moravia by the edict of 1624, finally settled at Leszno, in Poland. Having become professor of Latin and pastor of the Bohemian Church, he published, in 1631, his *Janua Linguarum Reserata*, i. e., *The Gate of Languages Unlocked*, which rapidly and deservedly gained for its author a prodigious reputation. Had Comenius only published this one book, Bayle rightly remarks, he would have immortalized himself and the Slavonic race. This work, translated into nearly all European languages, and even into Arabic, Turkish, and Persian, was composed for the use of the school of Leszno, published in that town, thus connecting it with his immortal name. It is impossible to give even an outline of Comenius's life and works here, but no educator should forego studying the masterly work of Kvaczala (now professor in the University of Dorpat) on Comenius, who was called by the Governments of Sweden and England, Transylvania and Holland, to reform their respective schools. After a residence of four years at the court of Sigismund Ragoczy, prince of Transylvania, he returned to Leszno and superintended its school till the destruction of that city under the reign of John Casimir. He fled to Silesia, and after long wanderings through Germany finally settled at Amsterdam, where he died in 1671.

The model school of Leszno was frequented by Protestant youths not only from every part of Poland but also from Prussia, Silesia, Moravia, Bohemia, and even Hungary. It justified its celebrity by an excellent organization and a continuous improvement of the methods of instruction. Comenius opened a new road on that important field, while the University of Cracow, the Jesuit colleges in Poland, and all the Catholic and Protestant schools in Germany and Poland alike lost themselves in the old scholastic methods of wasting the precious time of professors and pupils.

While the great Comenius improved the methods of education, nay, revolutionized them, Jan Johnstone, a Pole of Scotch descent, composed for the same school his *Historia Universalis Civilis et Ecclesiastica*, etc., ab orbe condito ad 1633—Leyden, 1633 and 1638; Amsterdam, 1644; Frankfort, 1672—continued till that year, and many works on natural history, monumental for their time, making him "unsurpassed in learning by any of his contemporaries."

Thus Leszno acquired a European reputation by its great men and its printing office, from which issued many important works in Polish, Bohemian, German, and Latin, and which was also provided with Greek and Hebrew types. But these literary establishments of Leszno were involved in the sad destruction of that town in 1656.

But the Protestants of Grand Poland, assembled at the synod of Parcice, resolved to rebuild their old and famous school by subscription. It was really reopened in 1663 and a classical seminary attached to it. Yet, owing to the fact that the family of Leszczynski had passed to the Roman Catholic Church, that a great part of its property was lost, and that the Protestant supporters of the town were generally ruined by war, it never attained its high standard again, although it has passed all the vicissitudes of the stirring history of the country, and exists to this very day, incorporated into and leveled to the present admirable school system of Prussia in her province of Posen.

The Bohemian brethren had also a higher school at Kozminek, established as early as 1553, which enjoyed for some time a great reputation. It dwindled down, however, toward the end of the sixteenth century, into a primary school, of which the Bohemian brethren possessed several in Great Poland, as, for instance, at Poznań, Barcin, Ostrorog, Wieruszew, Loebeń, etc. The instruction given in such schools consisted, in addition to religion, of reading, writing, arithmetic, and Polish grammar, the rudiments of Latin, and in some places of German. The Helvetian confession, which prevailed in Little Poland, had 14 higher schools in that province, including the palatinates of Red Russia, Volhynia, and Podolia. The most celebrated of them were those of Dubiecko and Lubartow. The latter, established and supported by Firley, palatine of Cracow, enjoyed for some time an extraordinary popularity, and was frequented by many Catholic youths as well. But all these schools had only temporary prosperity, and were soon ruined by the want of permanent endowments, the voluntary contributions by which they were sustained diminishing or ceasing with the frequent conversion of their supporters to Catholicism. Thus the school of Paniowce, in Red Russia, founded by Jan Potocki, and apparently of some importance, since it had the privilege of an academy and possessed a printing press, was abolished by Potocki's son, who returned to the Catholic Church. As for primary schools, we may safely assume that every larger congregation had one.

In Lithuania, too, there were quite a number of colleges belonging to the Helvetian Church, supported by the Protestant magnates of the Radziwills, who, although professing the Roman Catholic religion, continued to protect the foundations of their ancestors, and some of them last to this very day.

But, on the whole, it may be asserted that this period also in the Reformed world of Poland was rather barren in regard to the highest education and learning. The many petty but harassing religious

antagonisms between the parties within the church itself hemmed the progress of the Catholic University of Cracow, whose students frequently indulged in excesses; the Jesuit colleges, and the Protestant schools likewise. Many of the best Poles, nobles and divines, had to obtain their education in foreign universities, and, as an indispensable preparation for their academical studies, they were taught foreign languages, to make the foreign literatures accessible to them. In this foreign education, which was brought about by the downfall of the Polish schools of higher order, lies at the same time the reason why these schools could not recover till about the middle of the eighteenth century. The suppression of the anti-Trinitarian or Socinian schools in Poland, especially that of Rakow, which was conducted by scholars, Poles as well as foreigners, who enjoyed a European reputation; that of Lubartow, which belonged to the wealthy magnate family of Kazimirski, and many others; the abolition of their printing offices, prohibiting their restoration under the penalty of civil death, and the banishment of the professors—all left a deep gap in the system of Polish schools of high order.

*Revival of higher education and downfall of Poland.*—To Stanislas Konarski, a priest of the congregation of the Patres pii, belongs the high merit of reorganizing public instruction in Poland, of nationalizing it after the denationalization brought about by the macaronic period, and of giving a new stimulus to Polish literature. He found worthy assistants in the bishops Joseph and Andreas Zaluski, who established at their own expense a public library of 200,000 volumes at Warsaw, which they made public in 1747. When Stanislas-Augustus Poniatowski ascended the throne in 1764, a general movement of renaissance in Polish literature took place, which was zealously accelerated by the King. He also founded at Warsaw the "school of cadets," the nucleus of the now famous university. In order to encourage teachers and students by his presence, he used to come to the examinations held at that school, and had a familiar intercourse with the professors, whose erudition and works he liberally rewarded by the highest offices. After the suppression of the Jesuit order by papal decree, he employed their confiscated property and extensive estates to found and endow schools. Under his reign a commission of national education was established in 1775 to administer and perfect public instruction. This institution was, according to Forster, the first supreme magistracy of the kind in Europe, which sustained the reformed universities of Cracow and Wilno and hundreds of new schools by the funds obtained from the estates of the Jesuits, who had been expelled from Poland after the suppression of the order by Pope Clemens XII.

There is only one other State—namely, Prussia—which, after the destructive defeat of Jena and Auerstädt in 1803 and the subsequent loss of all her provinces on the left side of the Elbe, tried to compensate the material loss by an ideal gain, by the foundation of the University



of Berlin in 1810. Just in the same way, Poland, after the first dismemberment, in 1772, organized the said commission of education in 1773<sup>1</sup> and made it a government institution in 1775.

Of course the influence of the philosophy of the eighteenth century, the so-called period of enlightenment, and the progress in the system of teaching, the study of Montaigne, Komenski, Locke, Basedow, and Pestalozzi, and the spread of the influence of the encyclopædists had everywhere slowly created a sentiment in favor of good schools; in Poland, during the time of her misfortune, more than anywhere else the conviction took possession of many minds that good schools and higher education were necessary for the salvation of the country and for the moral and material progress of the nation. The King deemed it to be the duty of the Government to promote and aid schools of all grades for the promotion and extension of education, and the vice-chancellor of Lithuania, Joachim Chreptowicz, introduced a bill in the Polish diet of 1775 to make the commission of education a government institution. The act gave to the commission the exclusive right to control and govern all the Polish universities, colleges, academical colonies, and all the public schools. The commission was composed of the ablest men; among them were Andrew Zamoyski, Count Ignatius Potocki, Prince Adam Czartoryski, Prince Michael Poniatowski, bishop of Płock; Julian Niemcewicz, the famous poet; Gregor Poramowicz, Pater Kopczynski, and Pater Hugo Kollātai, the latter being the soul of the commission, an able and aggressive statesman, a highly cultured and liberal-minded man, a democrat in the best sense of the word. The commission held semiweekly sessions.

The country, so far as it was not annexed, was divided into six school districts. Each district had higher-grade and lower-grade colleges. The universities of Cracow and Wilno were reformed, and a teachers' seminary (normal college) added to each. Each district had inspectors of the schools and methods of teaching; libraries and museums were founded at the universities and colleges; gold and silver medals were coined to stimulate industry by awarding them to the best scholars; talented young men, after graduating from the home schools, were sent to the western and southern European countries to perfect themselves still further and to acquire more knowledge about other nations, their institutions, customs, and character.

The diet of 1793 extended the powers of the commission of education, and placed also the female institutes under its control. After the second partition the Government lost control of almost all its functions and the commission passed out of existence in 1794.

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<sup>1</sup> In July, 1873, the hundredth anniversary of the commission of education was celebrated at Lemberg (Lwów), capital of Galicia, Austria. In commemoration of that event the "charter of the commission of education" was reprinted in thousands of copies; it was to be the first volume of the "Pedagogical Library" of Lwów.



It is indeed remarkable that Poland, in the short period of her precarious existence, 1775-1793, made far greater progress in learning and produced more works of merit than during the whole period that macaronism dominated public education, a period which lasted nearly a century and a half. This progress of learning began also to exercise a most salutary effect on the state of the church in Poland, which had immensely suffered from the protracted struggle between the Catholics and the Dissidents.

But the Republic was doomed to annihilation. Yet, as if to illuminate its downfall, one of the most fruitful periods of scientific and literary elevation set in,<sup>1</sup> accompanying the restoration of schools, high and low. Krasiecki (1735-1801) was surnamed the prince of poets. His immense genius excelled in the most varied fields of poetry. His *Myszeis* (*mysz*, mouse; *Myomachia*) is a mock-heroic poem, consecrated to the war of King Popiel<sup>2</sup> against the mice of his kingdom. The oddities of the court of King Popiel and the quarrels, strifes, and intrigues of the mice are ingeniously and bitterly sarcastic allusions to the court and Polish nation of the time. It is in its kind—comparable to Sebastian Brant's *Narrenschiff* and Rabelais's satiric works—one of the best mock-heroic epics and the finest monument of Polish literature in the eighteenth century. His fables, too, are one of the master works of Polish literature. Niemcewicz is especially famous by his historic songs, which have been set to music by the Polish composers. Numerous other great literary men, like the historians Naruszewicz, Krasiński, Jezierski, etc., the jurists Skrzetuski and Ostrowski, the publicist Hugh Kollataj, etc., glorified the political downfall of the country. Stanislaus Staszic, born in 1755, a genuine patriot, after the establishment of the short living Congresspoland, at the Congress of Vienna, was named minister of public instruction, in which position he improved the existing schools and established new ones, and raised the University of Warsaw to a much more important position. He also founded an institute for the deaf and dumb and a school of engineering, thus laying the corner stone for the later developed schools of technology in Russia. It is his merit to have advanced the intellectual condition of the country in its political decline.

Another patriot, who devoted himself to the education of the Polish

<sup>1</sup> It is difficult to see how Morfill can find the period of Krasiecki and Niemcewicz and the literature which the political decay of the eighteenth century produced as "harmonizing with its decadence." This statement is as unwarranted as to call Krasiecki a "Polish embodiment of a French abbé;" "his epic on the war of Chomic no epic at all;" "his lighter pieces and mock heroics as pleasing."

<sup>2</sup> The legend of King Popiel, very similar to that of Bishop Hatto (cf. the mice tower on the Rhine), goes as follows: "King Popiel was a vicious man, and had become so hateful to the nation that a conspiracy, headed by his uncles, was entered into against him. He treacherously poisoned his enemies and left their bodies to the beasts of the fields. But numberless rats sprang from their bodies and consumed the king and his family."

nation, raised the Academy of Cracow to a high standard, bringing about a great progress in the education of the country, was Hugh Kollataj. But his efforts to remedy the political evils of the country were thwarted by the blindness of his opponents.

Thus all the brilliancy of the period in literature, history, and education served only to illuminate the end of Poland. From this time on education in Poland has to go through all the phases and political changes of the three countries of which she forms integral parts.

#### HIGHER EDUCATION OF RUSSIAN POLAND.

On April 25, 1795, Stanislaus Poniatowski resigned the crown of Poland at Grodno, and therewith the history of the country under Russian, Austrian, and Prussian rule begins. Emperor Paul treated his Polish subjects with great regard and kindness. His successor, the romantic Emperor Alexander I, also allowed, to a large extent, self-administration and the use of the native language, and in 1803 conferred great privileges upon the University of Wilno.

The crushing defeat of Prussia by Napoleon and the inglorious Tilsit treaty brought to a part of Poland once more a shadow of independence. By virtue of Article V of that treaty the duchy of Warsaw was created in 1807 under the Elector of Saxony, Frederick Augustus. It was composed of almost all the Polish provinces taken from Poland by Prussia in 1772, 1793, and 1795; it had about 2,200,000 inhabitants and an area of about 101,500 square kilometers, embracing six departments—Posen, Kalisz, Płock, Warsaw, Lomza, Bydgoszcz (Bromberg). In consequence of Napoleon's war of 1809 against Austria, in which the duchy participated, the latter was increased by all the land between the Vistula, Bug, and Pilitza, i. e., Cracow, Sandomir, Lublin, and other cities and territories.

This establishment of a national government in the new duchy of Warsaw had a favorable influence upon public instruction. The commission of education was resurrected, and Count Stanislaus Potocki placed at its head. The name was changed first to "chamber of public education," then to "directory of public education," and after the creation of the "congressional Kingdom of Poland," under Russian government, to "commission of enlightenment." Warsaw was endowed with a law school (1808), to which was added in 1811 a school of administrative sciences and a school of medicine. Each province of the duchy was to receive a district college, every village its primary school.

But the invasion into Poland of the confederate armies in 1813 made an end to the attempted reforms. Still the literary movement and the ascendancy of public instruction went on; historians like Lelewel and Albertrandy flourished, numerous literary societies were formed, and the cities and academies rivaled in preeminence as to certain branches. Thus the school of Krzemieniec was superior to that of Warsaw in poetry; Wilno excelled by its school of medicine; while in Warsaw the

Society of the Friends of Sciences contributed very much to encouraging and developing the literary movement. Mickiewicz planted the standard of romanticism in Poland; he is the Polish Victor Hugo. His *Konrad Wallenród* (1828) and *Malczeski's Maria*, a song of the Ukraine (1826), are pearls of epic and lyric poetry unsurpassed in any literature.

Thus the intellectual progress of the Russian part of Poland ever went on and the political dependence did not weigh too heavily upon the country. Russian Poland was to form a constitutional kingdom allied to Russia by personal union, somewhat like Sweden-Norway. The constitution allowed the country was even too liberal, as compared with autocratic Russia, to last very long. Poland was to be governed by responsible ministers, a senate, and a legislative chamber. A national army under the national White Eagle, a separate budget, a free press, and personal liberty, as well as the free use of the Polish language in private and official life were guaranteed; but this good will would and could not last. In 1819 the anti-Russian movement, which steadily increased, made a censorship of the press necessary, contrary to the terms of the constitution; some of the students of the universities of Wilno and Warsaw were imprisoned and tried for high treason.<sup>1</sup> At last the University of Warsaw and a great number of schools and private institutions of learning were suppressed by ukase of November 9, 1831, and the school of cadets at Kalisz by ukase of January, 1832. An ukase of February 15, 1832, decreed that the library of 150,000 volumes, engravings, and the cabinet of numismatics should be transferred from the University of Warsaw to St. Petersburg. The ukase of February 26, 1832, known by the name of "organic statute," destroyed all the stipulations of the Vienna treaty and declared "Poland is an integral part of the Russian Empire; its inhabitants must in the future form with the Russians but one and the same nation. The ministry of public instruction is abolished." All educational institutions of Poland were placed under the control of the department of the Interior in St. Petersburg. Here the school system of Poland begins to become absolutely Russianized in form, spirit, and contents; and it can not be said that, in spite of many hardships, the efforts of the Russian Government were unwise, impracticable, though hostile to the Polish education of the Polish nation.

In place of the closed university a "general college" was opened for the purpose of teaching law and classics. The nobility and bureaucracy had separate philological provincial colleges, while the other classes ("le tiers état") were educated in the so-called "real-gymnasia" with a more technical training. According to the ukase of Czar

<sup>1</sup> In 1830 Warsaw had the following higher educational institutions: The university with about 600 students; three classical gymnasia (lycea); one polytechnic school, founded in 1825; one agricultural college, founded in 1816; one school of forestry, founded in 1816; one musical conservatory; four seminaries; three female high schools with 830 pupils.



Nicolaus I in 1840 the purposes of education in Poland were to arouse the love of religion and monarchical government and the acquisition of special technical knowledge.

Mr. W. A. Day in his *Russian Government in Poland* (Longman, Green & Co., London, 1867), the best and most impartial book on the subject, based on the best and most reliable Russian sources, speaks about the educational events of that epoch in substance in the following way:

Warsaw and Wilno were the seats of two universities, where men of the Polish race had long been educated; they possessed libraries and collections, the relics of old times, the memorials of an age when Copernicus taught and Sobieski ruled. These institutions were regarded by the Emperor as memorials of that past which it was his mission to crush out. If he suppressed them, he thought he would destroy two of the rallying points of disaffection and revolt, so his mandate went forth, and the universities were closed.

The libraries and collections they had contained were transferred to St. Petersburg and Kief, and Poland and the western provinces were deprived of their accustomed means of education. No longer possessing them in their own neighborhood, the nobles of the Kingdom were compelled to send their sons to the distant universities of Kief, Moscow, and St. Petersburg. Some of the poor students, who were unable to afford the cost of an education, were supported at these universities on condition that after leaving it they should pass several years in the public service. Thus, far away from their own land, the Emperor anticipated that they would forget the misfortunes of their country, that they would cease to look back on its past history with vain repining, and that they would devote all their energies to the service of the Empire.

The result did not answer his expectations; in many instances it prevented the poorer proprietors from affording a liberal education to their sons, and frequently the wealthier classes refused to part with their children, as they objected to the long and remote separation rendered necessary by their distance from the Russian universities. And the wealthier proprietors were unwilling that their sons should enter the public service and they therefore sent them very frequently to some German university to receive their education, and left them to gather it as best they could in the course of foreign travel.

Education was thus in a measure checked by this act of power, but nevertheless large numbers of Polish students went to the principal Russian universities, where, instead of losing their nationality, it became more than ever confirmed.

Sometimes in periods of political excitement they banded themselves together as a distinct and separate body, neither sharing in the sports nor sympathizing in the pursuits of the other students. Thus, in the university of St. Petersburg they formed one-third of the whole body



of students, and in that of Kief they were comparatively even more numerous; in the former they partially and in the latter they altogether refused to associate themselves with the Russians. Oftener, however, they took the lead in daring political speculations, supported the most advanced liberal theories, and endeavored there to prejudice their Russian fellow-students against all the forms of an autocratic Government.

The policy of the Emperor Nicolaus on the subject of education was consistent with the measures adopted in other branches of the administration.

The study of the ancient history of Poland was forbidden or permitted only in the feeble or garbled treatises of Russian scribes, as though every battlefield had not its memory, as though every tomb in the churches, every banner that moldered on their sacred walls, did not teach some passage of her history. The works of foreign authors were rigorously forbidden, and secret commissions punished their study with imprisonment and exile. The visits of foreigners were as much as possible discouraged, and they were subjected to numberless vexatious restrictions, having their speedy departure for their object.

The process of Russification was inaugurated with great skill and executive talent, however painful the systematic policy of destroying an old, historic, and rich civilization might be to the Pole or any other nationalist.

The first act of that process was an act of charity. The poor Polish orphans and waifs, whose parents had perished during the bloody revolution of 1830 or had been deported, were taken under Russian care and protection to be educated in order to become useful Russian soldiers. On the 24th of March, 1832, Prince Paskewitch issued the following order:

It has pleased His Majesty the Emperor that all abandoned male children, orphans, or paupers in Poland be incorporated into the cantonal bataillons, and that accordingly they be taken in a body (*enlevés en masse*) and sent to Mińsk, where they will be disposed of according to the regulations of the generality of His Majesty.

Also the children of the Polish schools of charity, the orphans of the Child Jesus, were taken care of by the Russian administration. An ukase of June, 1832, prohibited the use of the Polish language before those tribunals of Russian Poland which lay outside the Kingdom proper.

The 15th of August Pope Gregory XVI addressed an encyclical to the bishops of Poland (alike in spirit to a recent encyclical of Leo XIII to the Polish bishops in Russia) to submit themselves to their magnanimous Emperor Nicolaus I as their legitimate sovereign. An ukase of June, 1838, prescribes that history and the exact sciences be taught in the Gymnasia (Lycea) in Russian. By virtue of decrees rendered in 1843 and 1845 in regard to the public instruction in Poland, superior and secondary instruction were limited to the technical sciences. To pursue the courses of classical and philosophical instruction the Polish

youths must betake themselves to the Russian universities proper. The communes were authorized to abolish old and incompetent schools according to their best judgment; thus 239 primary schools were closed in the decade of 1845-1855. The revolutionary movement in 1846-1848 forced the Russian Government to new measures of restriction. But a new stimulus was given to the cause of education when the noble Emperor Alexander II, in 1856, appointed Marquis Wielopolski minister of civil government of Poland.

At the accession of Alexander II to the throne, education in Poland was at a very low ebb. The suppression of the University of Warsaw left no establishment in the Kingdom where a superior education could be procured. In all the Kingdom there were only eight gymnasia or institutes for nobles where a secondary education was given, and by law the professors in these institutions were obliged to teach the sciences in the Russian language, though practically this enactment was not always observed, for it was difficult to find professors who could speak Russian, and still more difficult to find scholars to comprehend them.

The elementary public instruction was in a better condition. The number of elementary schools was 1,000, and there were 20 district and "real" schools. Yet even under these improved conditions, in 1860 only 137,417 persons (28 per 1,000) in Poland had obtained a superior education; 325,470 (170 per 1,000) could write and read; 3,877,579 (802 per 1,000), or more than four-fifths of the population, could neither write nor read.

In 1857 the Government had taken the first step toward the establishment of a university in Warsaw by endowing a faculty or academy of medicine there. A further step was taken in 1861, when the Emperor directed the commission of public instruction to elaborate a project of law in order thoroughly to reform the organization of public instruction in the Kingdom. The aim of this scheme was to enable men of every religion and condition to study special sciences there, and allow the common people to acquire all elementary knowledge necessary for them.

The law consequently elaborated was sanctioned by the Emperor, and put in force from March 20, 1862, and consisted chiefly of the following particulars:

Catholic priests and proprietors of towns and villages were allowed to found, at their own expense or at that of the place where they were established, elementary schools for teaching the Catholic religion, reading and writing in the Polish language, and arithmetic, and they could appoint as masters of such schools all individuals having the qualifications required by law for enabling them to take such office. In addition to these, one or more elementary schools were to be founded in each commune at the expense of the Government; these schools were to be placed under the surveillance of the Catholic priests and certain

inhabitants of the commune, elected by the commune itself, and to be subject to their inspection and local administration.

The district schools were to be divided into "general" schools for general instruction; "training" schools for preparing masters for elementary schools, and special or "real schools" for teaching agriculture, trade, and other special subjects.

In addition to the 7 existing gymnasia, 6 more were directed to be added, and instead of the Institute of Nobles a lyceum was founded as an establishment where a supplementary or superior class to those existing in the gymnasia might be taught. The scholars might belong to any religious denomination, and the cost of instruction was only 16 rubles a year.

A polytechnic institute was founded in Pulova, and the plan of the University of Warsaw was sketched out. It was to be composed of four faculties—medicine; philosophy, or physics and mathematics; jurisprudence; history and philology. To the university two seminaries were to be attached for preparing masters for gymnasia and district schools. The polytechnic institute was to be composed of five sections—mechanics, civil engineering, mining, agriculture, and forestry. Students of all religious persuasions were admitted to the university, and the cost of instruction was only 20 rubles a year.

The national language, history, and literature were to be taught in all the schools; the Polish language was alone employed in giving instruction, and the Russian language was only taught in the superior and secondary schools.

Such were the institutions founded in consequence of the decree of March 14, 1861, by the noble and liberal-minded Emperor Alexander II, and his right hand in Poland, Wielopolski. These institutions were intended to pave the way to others of a yet more liberal and national tendency, and to the eventual introduction of a system of constitutional government in Poland, for extended education is the surest preparation for the responsibilities of power.

But the insurrection of 1863 stopped the beautiful free development of a national education in Poland. Yet even under these changed conditions, the fruits of the educational movement were not lost, although partly lost, to Polish nationalism.

Marquis Wielopolski, although animated by sincere patriotism, with great knowledge of his country and the wishes of his countrymen, was nevertheless probably the most unpopular man in Poland. Yet his merits in the improvement of education in Poland were extraordinary. Under him the schools were reorganized and rapidly increased. The university was partly reestablished in 1861 under the name of "Principal School," in 1862 the Marymont Institute was changed into the Polytechnic Institute, and in 1869 the former was raised to the standard of the other Russian universities, all instruction being, however, unfortunately conducted in the official Russian language.



*The new University of Warsaw.*—On June 8, 1869, an imperial ukase was issued to the Ruling Senate (*Pravitelst vuyuschiy Senat*), reading as follows:

Having recognized the advantages of erecting in the place of the now existing Principal School at Warsaw an imperial university, enlarging it in accordance with the local conditions and the legislation on the basis of which the other universities are constructed, we authorize the drawing up, by the minister of public instruction and in the committee for the affairs of the Tsarstvo of Poland, the plans for the establishment and the statutes for the University of Warsaw, and transmitting them to the Ruling Senate, we decree that—

(1) On the basis of these plans and regulations there be established in place of the Principal School at Warsaw at the beginning of the ensuing academic year 1869–70 the Imperial University of Warsaw.

(2) For the support of this university there be turned over the sum of 132,100 rubles, which is at present given for the maintenance of the Principal School, and the remaining sum of 79,680 rubles, needed for the budget of the university, shall be added from the imperial treasury.

(3) The balance necessary for the maintenance of the university in this current year of 1869 in consequence of the change of its status shall be entered into the accounts of expense of the ministry of public instruction.

In the following year (1870) the total of 211,718 rubles required shall be put under the proper heading in the financial accounts of the ministry of public instruction.

(4) All the plans for the construction of the university in place of the Principal School at Warsaw shall be submitted to the minister of public instruction.

The Ruling Senate shall not cease to work for the completion of the proper plans.

ALEXANDER II.

TSARSKOE SELO, June 8, 1869.

The University of Warsaw, like all the Russian universities, belongs, according to Friedrich Paulsen, to the German type of university, which also includes Austria, Switzerland, the Netherlands, and Scandinavia. The word of J. Delyanoff, Russian minister of public instruction, will be unassailable:

We endeavor in everything that concerns educational affairs to accept Germany as a model, and this is very good. Our universities are established after the German type. Germany is the country of higher civilization; its universities stand on a considerable height.

A commission of all the curators of the Russian universities and 7 professors, under the chairmanship of the curator of Dorpat, George von Bradke, in 1862 undertook the modification and advancement of the law of 1835 concerning the universities, not its change. In 1863 the "improved" bill of that commission became law under the minister of public instruction, A. Golownin, who deemed it essential and necessary to make the autonomy of the universities the basis of the law. It consequently transferred the direct administration of the universities to the rector and the academic council, "which shall decide all the affairs either definitely or subject to the confirmation by the curator of the university. The academic council is the center of the internal administration, the highest resort, to which all the other organs are subjected."



Briefly, all this meant self-government of the universities, to the exclusion of the State and governmental power.

Golownin's successor, Count D. Tolstói (1866-1880), soon recognized the necessity of organic changes. The attitude of the students; their excesses of a political nature; disturbances, especially among those of the university, the medico-surgical academy, and the school of technology at St. Petersburg, forced the minister to fix their position legally in harmony with the other higher organs of the State power (1867); collisions in the academic council brought about instructions in regard to the duties and rights of the rector (1868); extremely undesirable results at the reelection of professors, who needed a majority of two-thirds of all the votes of the academic council, caused the abolition of this arrangement.

It was just at this critical juncture that the University of Warsaw was established with the old principal school as its nucleus, and it was but natural that it should receive regulations of its own, especially adapted to the necessities, from a Russian standpoint, of a university of the Tsarstvo of Poland. The other Russian universities received their general statute only in 1884, which decisively transferred the acting power from the academic council and the faculties to the organs of the State, the curator, the inspector, a kind of police supervisor, and the rector.

*The constitution of the University of Warsaw.*—The constitution of the university is given in 11 chapters and 138 sections,<sup>1</sup> of which it may be desirable to make the following brief extracts:

The University of Warsaw consists of the 4 faculties, the historico-philological, the physico-mathematical, the legal, and the medical faculties. It is under the supreme supervision of the minister of public instruction and belongs to the circuit of the curator of Warsaw. He supervises the relations of the university with the minister and the supreme imperial power, decides questions which are not reserved to the minister, and has especially to maintain order and discipline within the university. The immediate administration of the same belongs to the rector, the academic council, the directors, and the faculties.

The Russian language is obligatory in conducting all instruction as well as in all official documents of the university.

The rector is nominated by the minister of public instruction from among the full professors and confirmed by the Emperor. He has the immediate administration of the university and is superior to the officers of the same. The academic council, in which all full and associate professors, under the chairmanship of the rector, have a seat and vote, bestows, at the request of the respective faculties, academic dignities, and has an advisory power with the curator or the minister in the affairs of instruction and inner administration of the university.

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<sup>1</sup> Ustav Varshawskiego Uniwersytetu, pp. 33.

As to the general features of the Russian universities, their institutions, reforms, administration, I may safely refer the reader to the Report of the Commissioner of Education, 1890-91, pp. 195-242, prepared by Miss Frances Graham French.

The constitution of the universities at St. Petersburg, Moscow, Khar-kov (Charkow), Kazan, Kief, Odessa, is established by the imperial universal statute of August 23, 1884, and by a great number of regulations issued by the minister of public instruction. The University of Helsingfors (Finland) has its own statutes of 1852. The University of Tomsk has so far only a medical faculty, though the other faculties are now in preparation. The statutes of the old German University of Dorpat (Jurjew) and the formerly Polish University of Warsaw do not differ very much from the universal statute except in several incisive points, especially adapted to the purpose of making them centers of Russian learning par excellence. The university of Warsaw under the present curator, Apuchtin, is the center of the educational district of Warsaw, which is one of the 14 educational districts into which the Empire is divided (St. Petersburg, Moscow, Kazan, Orenburg, Charkow, Odessa, Kief, Wilno, Warsaw, Dorpat, Caucasus, Turkestan, West Siberia, and East Siberia). According to the original plan of this division during the reign of Alexander I, at the head of each district a university was to stand, but it is wanting as yet in the districts of Wilno, Orenburg, Caucasus, East Siberia, and Turkestan. All the universities, and in fact most of the schools, of the Empire are under the ministry of public instruction; only certain special schools are under separate ministers. The total contribution for education from the various ministries was 43,884,534 rubles in the budget for 1893.

The board of directors, which consists of the deans of the four faculties and the inspector, is charged with the economic administration, and exercises a judiciary power over the students. The disciplinary power is, first of all, in the hands of the inspector, a police officer without scholarly qualification, who, at the proposal of the curator, is nominated by the minister, and, although dependent on the rector in his activity, reports not directly to the rector but to the curator. With his assistants and servants and with the secretary for the affairs of the students he has to watch over the conduct of the students within the university buildings and, so far as possible, also outside of them. If the good order or good morals are disturbed in the university he has to employ proper measures to restore order.

The university has the right to import books from abroad without censorship as well as the right to publish books without preventive censorship upon the responsibility of the faculties. Each faculty consists of the dean, the full and associate professors, the docenten, and the lecturers. The deans are elected at the meetings of their faculties from the number of the full professors for three years, and, if there are less than 3 such professors in the faculty, also from the number

of the [extraordinary] associate professors. They must be confirmed by the minister of public instruction.

The historico-philological faculty of the University of Warsaw was originally established with 11 professors and 6 docenten.

The instruction in the Polish language as well as in the other modern foreign languages may be given by lecturers in their native tongue.

The following studies were to be obligatory: (1) Philosophy, (*a*) logic, (*b*) psychology, (*c*) history of philosophy; (2) Greek, (*a*) Greek language and interpretation of authors, (*b*) history of Greek literature, (*c*) Greek antiquities; (3) Latin (divisions like Greek); (4) grammar of the Slavonic languages; (5) Russian and the other Slavonic languages and the history of Russian literature; (6) history of general literature; (7) Slavonic philology, (*a*) Slavonic languages—Polish, Czech, Servian, etc.; (*b*) Slavonic antiquities; (8) general history; (9) Russian history.

In the physico-mathematical faculty the academic chairs were originally distributed among 10 professors and 5 docenten: (1) Pure mathematics; (2) mechanics (*a*) analytical, (*b*) practical; (3) astronomy and geodesy; (4) physics; (5) chemistry, (*a*) applied, (*b*) theoretical; (6) physical geography; (7) botany, (*a*) morphology of plants, (*b*) anatomy and physiology of plants; (8) mineralogy, geognosy, and paleontology; (9) zoology, (*a*) anatomy and systematics of animals, (*b*) anatomy of men and physiology of animals; (10) technical chemistry; (11) agronomical chemistry.

The law faculty was to have 10 professors and 3 docenten: (1) Encyclopedia of law, (*a*) encyclopedia of the legal and political sciences, (*b*) the history of the philosophy of law; (2) history of Russian law; (3) history of the Slavonic legislations, with a view to the other ancient and modern legislations; (4) Roman law, (*a*) history of the Roman law, (*b*) dogmatics of the Roman civil law, (*c*) Byzantine law; (5) public law, (*a*) theory of public law, (*b*) public law of the various foreign states, (*c*) Russian public law; (6) civil law and theory of pleading; (7) penal law and procedure; (8) police law; (9) finance law, (*a*) theory of finances, (*b*) Russian finance law; (10) international law; (11) political economy and statistics.

The medical faculty was to consist of 16 professors, 10 docenten, and 3 demonstrators (prosectors), and was to be provided with the necessary clinics and laboratories. One lector, for Russian, German, French, English, and Italian, respectively, was to be appointed.

As to the academic degrees, conditions, and appointments of the docenten and professors at the University of Warsaw, there is no difference from the other Russian universities. I can therefore refer to the Report of the Commissioner of Education, 1890-91, pages 237 to 242. As to salaries, they were fixed in the imperial ukase of 1869 at 5,000 rubles for the rector, 3,000 rubles for the full professors and the inspector, 2,000 rubles for the associate professors, 1,200 rubles for the docenten and demonstrators, 2,000 rubles for the lector in Russian, and 800 rubles for the lectors



in the other modern languages. For the cabinets and laboratories 7,650 rubles were appropriated; for the clinics, 8,000 rubles; for the edition of the university journals and gazettes, 800 rubles.

The matriculation of male students only, connected with many formalities, can take place only at the beginning of the winter semester in the case of such young men as are in possession of a certificate of maturity from a regular gymnasium under the supervision of the minister of public instruction. In the historico-philological and physico-mathematical faculties of the University of Warsaw only pupils of the religious seminaries, after passing an entrance examination, can be matriculated. Also, other friendly disposed persons besides the students can, under certain conditions, be admitted to the courses. Passing over from one Russian university to another can take place only with the permission of the board of directors of the latter institution. When applying for admittance, the student has, with his other certificates, to file his photograph with his own signature. He has to procure from the inspector every semester a new passport and entrance card to the university. The student pays to the university 50 rubles per semester (in the other Russian universities, 25 rubles) and a fee of 1 ruble per weekly hour for the semester (about 15 to 20 rubles). There is, however, an extraordinary liberality in remitting these fees, and even in granting scholarships, to needy but worthy students. These scholarships (*stipendia*) mostly enjoin the obligation upon the student of remaining in the State service for a certain number of years after graduation. Students' societies, deputations, collective petitions, and addresses are forbidden. The punishments that can be inflicted upon students are like those in the German universities—admonition, prison (in the so-called “*carcer*”), removal from the university (*consilium abeundi*), and relegation without the right of passing over to another Russian university.

The complete academic course comprises, for medical students, 10 semesters; for those of the other faculties, 8 semesters. Controlling examinations take place at the end of every semester. After completing his course, the student may obtain scholarships for two or three years, in order to prepare himself for the higher degrees. The requirements of scholarship and attainments are minutely described in the regulations, confirmed by the minister of public instruction. The final medical examination presupposes a preliminary examination in natural sciences after 4 semesters (like the *tentamen physicum* in Germany). There are two academic degrees—that of *magister* and of *doctor*—which are a necessary preliminary for obtaining a professorship in a Russian university.

To the original regulations of June 8, 1869, eleven appendixes (*priloshenia*) were added, to extend and improve the teaching and administering power of the university. These additional decrees were promulgated by the minister of public instruction or the curators of the Warsaw circuit of education from March 18, 1881, to December 27, 1891.



The need of a thorough Polish literary education having been strongly felt, it was at last decided by the committee on Polish affairs to leave it with the minister of public instruction to appoint a professor for Polish literature at a salary of 3,000 rubles. The Emperor having given his consent on January 12, 1882, it was reported by the curator on February 1, 1882.

The regulations concerning the rights of the rector as chairman of the academic council were fixed, the payment of fees by the students arranged, the university library provided with librarians and assistants, the astronomical observatory and meteorological station established, the numismatic cabinet and the museum of antiquities founded: briefly, the university put in working order in every respect.

*Latest statistics of the University of Warsaw.*—According to the statistical data given by the rector of the University of Warsaw, there were on the 1st of January, 1894—

|   |    |
|---|----|
| Professors, ordinary, including the rector.....   | 48 |
| Professors, extraordinary.....  | 12 |
| Privat-docenten, prosecutors (demonstrators in the medical faculty, and lecturers, i. e., instructors in modern languages (the only ones who need not be Russian subjects)..... | 20 |
| Total .....   | 80 |

Of the 47 chairs founded at the establishment of the university and distributed over the 4 faculties, there were 4 vacancies during the last scholastic year—agricultural chemistry, encyclopedia of the law and political sciences, legal medicine, and the clinical chair of therapeutics.

*Number of students*

During the scholastic year 1889-90:

|                             |       |
|-----------------------------|-------|
| Historico-philological..... | 53    |
| Physico-mathematical.....   | 143   |
| Law.....                    | 389   |
| Medical.....                | 579   |
| Total.....                  | 1,164 |

During the scholastic year 1890-91:

|                             |       |
|-----------------------------|-------|
| Historico-philological..... | 53    |
| Physico-mathematical.....   | 138   |
| Law.....                    | 378   |
| Medical.....                | 621   |
| Total.....                  | 1,190 |

During the scholastic year 1891-92:<sup>1</sup>

|                             |                    |
|-----------------------------|--------------------|
| Historico-philological..... | 47                 |
| Physico-mathematical.....   | 135                |
| Law.....                    | 379                |
| Medical.....                | 612                |
| Total.....                  | <sup>2</sup> 1,173 |

<sup>1</sup> In this year 13 students were excluded from the university by order of the minister of public instruction.

<sup>2</sup> Besides 165 pharmaceutical and 6 foreign students.

During the scholastic year 1892-93 (including 99 pharmaceutical students).... 1, 176  
 January 1, 1894 (including 57 pharmaceutical students)..... 1, 152

The students were distributed among the four faculties as follows:

|                             | Students. | Per cent. |
|-----------------------------|-----------|-----------|
| Historico-philological..... | 29        | 2. 67     |
| Physico-mathematical.....   | 141       | 13. 27    |
| Law.....                    | 351       | 32. 35    |
| Medical.....                | 561       | 51. 70    |

According to religions they were distributed as follows:

|                            | Students. | Per cent. |
|----------------------------|-----------|-----------|
| Orthodox Greek.....        | 192       | 17. 70    |
| Armenian Gregorian.....    | 2         | . 18      |
| Roman Catholic.....        | 624       | 57. 51    |
| Lutheran and Reformed..... | 51        | 4. 70     |
| Hebrew.....                | 216       | 19. 91    |

According to birth there were—

|   | Students. | Per cent. |
|---|-----------|-----------|
| Sons of nobles and state officials..... | 426       | 39. 26    |
| Sons of the clergy.....                 | 47        | 4. 33     |
| Sons of merchants.....                  | 22        | 2. 05     |
| Sons of urban classes (mieshtshan)..... | 531       | 48. 95    |
| Sons of rural classes (krestjan).....   | 38        | 3. 59     |
| Sons of foreign subjects.....           | 24        | 1. 93     |

According to preliminary education there were—

|   | Students. | Per cent. |
|---|-----------|-----------|
| From gymnasia.....                              | 1, 043    | 96. 13    |
| From religious seminaries (Greek orthodox)..... | 37        | 3. 41     |
| From other secondary schools.....               | 4         | . 46      |

These students came from the following educational circuits (okrugi):

|                                  | Students. | Per cent. |
|----------------------------------|-----------|-----------|
| Warsaw.....                      | 828       | 76. 32    |
| St. Petersburg.....              | 19        | 1. 75     |
| Moscow.....                      | 16        | 1. 45     |
| Kazan.....                       | 11        | 1. 01     |
| Orenburg.....                    | 3         | . 27      |
| Western and eastern Siberia..... | 5         | . 46      |
| Charkow.....                     | 5         | . 46      |
| Odessa.....                      | 19        | 1. 75     |
| Wilno.....                       | 56        | 5. 16     |
| Riga.....                        | 36        | 3. 32     |
| Caucasus.....                    | 11        | 1. 01     |
| Kieff.....                       | 38        | 3. 59     |
| Religious seminaries.....        | 37        | 3. 41     |
| Foreign institutions.....        | 1         | . 001     |

In the scholastic year 1893-94 the university granted the following titles and degrees:

|  | As grad-<br>uate stu-<br>dents. | As can-<br>didates. |
|--|---------------------------------|---------------------|
| In the historico-philological faculty..... | 3                               | 1                   |
| In the physico-mathematical faculty.....   | 2                               | 9                   |
| In the law faculty.....                    | 38                              | 27                  |
| In the medical faculty:                    |                                 |                     |
| Physicians.....                            |                                 | 82                  |
| Pharmacists.....                           |                                 | 121                 |
| Dentists.....                              |                                 | 7                   |

*Report of the rector (1893-94).*—The University of Warsaw is composed of four faculties, the historico-philological, the physico-mathematical, the law, and medical faculties, like the other Russian universities, excepting St. Petersburg and Odessa, which have no medical faculties; but the former has, beside the historico-philological, a most admirable oriental faculty.

The work done during the academic year 1893-94 shows that the University of Warsaw is a real universitas litterarum, not inferior to any European school of equal grade in the scope of instruction.

*The historico-philological faculty.*—This faculty consists of three great departments, the classical, Slavonic-Russian, and historical departments.

The principal studies are analogous to those of most of the other European universities here specially adapted to the needs of Polish students who are to be amalgamated to Russian professional, scientific, and literary life. The time to be devoted to study in this faculty embraces four years.

In philosophy there is at present only one chair, to which falls the instruction in psychology, logic, ancient and modern philosophy.

In the Greek language and literature, Greek dialectology, Euripides, Thucydides, as well as translation from Russian into Greek, is conducted by the head professor; the history of Greek literature, an introduction into Aristophanes, translation from Latin into Greek, interpretation of the orator Aischines is conducted by the associate professor of Greek.

The Latin department, conducted by 2 professors, embraces studies in literature, criticism, and hermeneutics in Tacitus, Juvenal, Martial, Cicero's philosophical works, and seminary practice.

Comparative studies of the Indo-European languages, their phonetics and morphology, and Sanscrit proper are taught by 1 professor ordinarius.

Russian and the other Slavonic tongues are taught by 2 professors and 1 lecturer, viz, Panslavic grammar, history of Russian literature in the eighteenth and nineteenth centuries, Russian grammar.

The history of Western-European literature is represented by 1 associate professor, who lectures on the epic poetry of western Europe and modern Greek literature.

Slavonic philology and antiquities are represented by 3 professors and 1 docent, embracing the history of Polish literature, Slavonic literature, and archæology at large, characteristics of the Slavonic races, ethnology, grammar of the Czech and Lusatian tongues.

Western European history, represented by 2 professors, who teach Greek history, German history in the nineteenth century, history of the Middle Ages, diplomatics and chronology, and practical exercises on the history of the Middle Ages.

Russian history, in the hands of 2 professors, treats of the reign of Alexander I and the modern period of Russian history, its ancient period, and the history of Western Russia.

The two principal Teutonic and the romance languages—German and English, French and Italian—are each represented by 1 poorly paid lecturer, generally a foreigner. In these departments lies the weakness not only of the University of Warsaw, but of all Russian universities, that of St. Petersburg not excluded. Instruction in modern languages amounts to mere “*Sprachmeisterei*.” There is not even a beginning of modern philology and critical literature in a university sense, and the contrast with the other highly developed branches of learning is so much the more striking.

*The physico-mathematical faculty.*—This faculty is admirably fitted out with professors and apparatus. All the branches taught in the best universities are here well represented in 22 departments, embracing astronomy, geodesy, botany, mineralogy, and crystallography; general, special, and technical chemistry; experimental physics, zoology, geology, and paleontology; pure and applied mathematics, mathematical physics, physical geography, comparative anatomy, and histology; mechanics and heavenly mechanics.

*The law faculty.*—This consists of 14 principal departments, under 12 professors, beside the 2 departments of legal medicine and psychiatry. The students of law are obliged, for their general education, to attend during their first year the lectures in the historico-philological faculty on the Russian language, ancient Russian history, history of ancient philosophy and logic, history of the Middle Ages; during their second course, the lectures on modern Russian history, the history of modern philosophy and psychology, as well as the French or German language. This rule is exceedingly beneficial for the elevation of the juridic faculty and worthy of imitation with us, especially as no finished college education is required for entrance to most of our American law schools, as is required for entrance to the Russian juridical schools.

The principal departments in the Warsaw law faculty are the following: Encyclopædia of law and the history of Slavonic legislation, legal and political sciences; history of Russian law; Roman law and Byzantine law; political law, civil law, civil procedure, penal law, criminal procedure, police law, law on economics and finances, international law, statistics, commercial law.



archives, although treasures are yearly dug out and published by the Polish and Russian historians in Warsaw, Cracow, and Lemberg. The archives contain, furthermore, among other treasures, the documents of the last Polish king and of Kosciuszko, the diplomatic archives of the Polish crown and Lithuania (1579-1759), political documents from the time of the partitions; also documents from the Russian time (1826-1831). The archives are, according to their importance, excellently administered by the Polish professor of the university, Adolf Pawiński, well arranged and catalogued. They are under the control of the central government of the Tsarstvo of Poland and have about 80,000 volumes in folio.<sup>1</sup>

*Archives of old records of the kingdom of Poland.*—There are still other important archives in Warsaw (Archiv starych diel), which contain the remnant of the records, decrees, accounts, documents, contracts of the dissolved state council of the Polish king, the various commissions of the Polish government and other central magistrates. These archives form a part of the present chancellery of the Russian central government of the Polish Tsarstwo. By far the greater part of these old records had been destroyed or were sold at auction as waste paper after the last partition of the country; another part had been distributed among the various state ministries, provincial governments, and local magistracies.

*Secondary education in Warsaw.*—Of secondary schools Warsaw possesses 6 gymnasia, 1 real-gymnasium, 2 progymnasia (i. e., incomplete, the upper classes wanting), 1 (male) teachers' seminary, besides 4 (female) gymnasia, progymnasium, 1 school of drawing, 1 institute for the deaf and dumb and 1 for the blind, 1 Sunday business school for merchant clerks, 1 Sunday business school for tradesmen and mechanics. These are all Government schools. Outside of them there are, however, a large number of private schools of a higher order, which are all licensed and provided with teachers who have all finished their professional education and are provided with the respective diplomas.

*Musical education in Warsaw.*—A special feature of higher education are the musical institutes of Warsaw. In 1805 the Musical Society was organized. Its directors were Fr. Lessel and Count Fr. Krasicki. In 1812 it was changed to a "Musical Conservatory," under the directorship of Elsner. In 1823 the conservatory had already 164 pupils, among them Chopin and Dobrzynski, both pupils of Elsner. In 1858 Moniuszko was director of the conservatory and the leading spirit in Polish music. In 1861 Apolinary Kontski reorganized the conservatory, but the insurrection of 1863 greatly impaired the progress of that school, as well as of all the other institutions; yet the art of music developed to a high degree among the Poles, especially at the capital.

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<sup>1</sup>There is an excellent description of this famous library by Bandtke and Herbart (lithogr.), 1840.

All these facilities for schools, from the lowest to the highest order, passing over the whole range of human knowledge—its unique libraries, its stupendous historical monuments, with their glorious reminiscences—make Warsaw the center of the intellectual life of the Polish people. Churches and cathedrals help to attain the highest standard of culture possible in a modern large city. Famous among them are the Catholic Cathedral of St. John, founded in 1360, connected with the old royal palace by corridors, containing the famous pictures and tombs of ancient celebrated Poles; the magnificent Greek Cathedral, finished in 1842; the Church of the Holy Cross, finished in 1695, with a splendid frontage and valuable images. The Capucin Church, built in 1681, contains the admirable marble statue of Jan III. (For a general description of the city, see the author's article "Warsaw," in Johnson's Universal Cyclopædia.)

*Secondary education in the country at large.*—As stated before, education has also been entirely reorganized since 1863 over the entire Polish country outside of Warsaw, and is steadily progressing, owing to the efforts of the Government to Russianize the nation by a thorough and extensive Russian education, and still more from the conviction of the Polish people that education alone can secure a high estimation and prestige of their nationality in the vast empire of which they are an integral part. In every Government town there is a gymnasium; the former district schools are rapidly changed into progymnasia. Although the official language in all the schools is Russian, as well as in the courts and all official affairs, yet the Polish language is generally known and used and even enriched and polished by the extensive printing of Polish books of all grades, while the pulpit is filled almost invariably by Polish priests for the Polish population, which is mostly Catholic. Especially difficult, if not impossible, is it to extirpate the Polish language in the primary schools which are being founded in almost all the villages that have an almost exclusive Polish population, unless it be mixed with numerous Jews and Germans. These schools, under the special supervision of Russian school inspectors, succeed, of course, in teaching the Russian language, but the latter is seldom used by the children at home and after the obligatory years of schooling are over.

The following secondary schools in the congressional Kingdom have certainly not yet lost their Polish character:

The city of Płock has 3 gymnasia, 1 teachers' seminary, 1 theological seminary.

The city of Połock (in White Russia) had a Jesuit academy up to 1829; from that time a high school, conducted by the order of "patres pii" (patres scholarum piarum). Połock has now only a county gymnasium. The cadet school was abolished in 1863.

The city of Sandomierz has a theological seminary and a gymnasium.

The city of Wloclawek has a theological seminary.

The city of Kielce has 1 theological and 1 teacher's seminary.

The city of Lublin has a theological seminary and a gymnasium.

The city of Lipno has a gymnasium.

Teachers' seminaries are also at Wymyslin, Tuchola, Leczyca, Biata, Siedlce, Wajwery, an agricultural and forestry academy at Puławy, a business college at Lodz.

Outside of these there are about 50 public and private high schools in the congressional Kingdom.

*Wilno.*—We have briefly mentioned the history of the old and famous University of Wilno, the ancient capital of Lithuania, its foundation by Stephen Batory in 1570, its character as a Jesuit institute, its tendencies for good and for evil, its renewal by Alexander I in 1803, its prestige at that time, its suppression in 1833, and the removal of its library to St. Petersburg. A medico-surgical academy replaced it, but this was suppressed in 1842, and thus every trace of the university was blotted out.

But, although the University of Wilno is no longer in existence, yet the excellent libraries and archives of the renowned old capital of Lithuania make it still a unique center of learning, especially in Polono-Lithuanian history and diplomatics. Most valuable is the public library and museum (*Publičnaja biblioteka i sostojaščij pri nej muzej*). In 1856 Count Tyszkiewicz founded an antiquarian museum and an archaeological commission with it. When the old museum was closed in 1865 the valuable manuscripts of the museum (538 manuscripts and 2,000 documents) were transferred to the newly established public library of Wilno. In connection with the scholarly expeditions and researches of the years 1860-1880, which dug up rich treasures of the literary past, a considerable collection of church-Slavonic manuscripts was accumulated. The rich archives of Prince Sapieha, of the court of lords at Grodno, containing Russian manuscripts of the sixteenth century and extensive correspondence of Polish magnates in Government service, were also transferred to this library. It contains, besides, some of the most important old Russian manuscripts (for instance, the Turov Evangelium of the eleventh century) and numerous literary productions from western Russia, partly in the western Russian dialects. For the older history of the country there is nowhere more documentary material than here. Russian and Polish documents of all descriptions abound.

The department of printed books has been enriched by the collections of the ancient Roman Catholic cloisters, by confiscations of the rich libraries of political criminals, mostly anti-Russian magnates, and from various donations and exchanges, mostly of Latin and Polish and theological books.

The antiquarian museum contains the rich collections of its founder, Count Tyszkiewicz. Enriched by further donations, it contained in



1858, among others, 2,900 historic objects and 3,200 coins. Some of these valuable objects were later on transferred to the Russian museum in Moscow. At present the Wilno museum contains prehistoric, ethnographical, and mythological objects, old weapons, Christian, old Greek, and Roman antiquities, medals and coins, seals, portraits, and works of sculpture; all the objects together numbered 11,700 in 1885.<sup>1</sup>

Wilno still possesses very numerous schools of a higher order—1 Roman Catholic theological seminary, 1 Greek Catholic seminary, 1 Christian and 1 Jewish teachers' seminary, 2 classical gymnasia, 1 progymnasium, 1 real school, 1 tradesmen's school, 2 girls' gymnasia, over 20 public and city schools.

The ruins of the old and historic castle of the Jagiellos still exist as a monument of Wilno's great past, when it was the capital of the Lithuanian princes from 1323 on. Among the 18 Roman and 12 Greek Catholic churches, the cathedral of St. Stanislaus especially excels with its magnificent marble chapel containing the silver coffin, weighing 3,000 pounds, with the remains of St. Casimir (died 1480), a place of pilgrimage for the Polish-Lithuanian people.<sup>2</sup>

Wilno has also the central archives of the ancient documents of the governments of Wilno, Grodno, Mińsk, Ljublin, and Kowno (Centralnyj archiv drevnich aktovykh knig).

As early as the fifteenth century provision had been made in the Lithuanian statute, and elsewhere, for the preservation of manuscript documents of the grand principality of Lithuania "in the stone houses and solid chests." Thus the materials of the Lithuanian supreme court of Wilno, as well as of other courts, various commissions, etc., i. e., state documents of the Lithuanian dukes, judiciary charters, local records, etc., were gradually collected so completely as to cover local history year for year. But the continuous wars and conflagrations proved very destructive to the archives, many things were purposely destroyed, many documents almost professionally falsified, so that great critical tests are necessary for the appreciation of these collections.

In 1852 the buildings of the suppressed University of Wilno (like those of Kief and Witebsk) were turned over to the storing of the central archives, and all the above-named documentary treasures, mostly Latin and White Russian and Polish, were deposited in that building and finally catalogued in 1863.

The oldest registers of these archives are the documents of the city council of Wilno from 1492 on. Among the most important documents, historically, are the letters and privileges of Jagiello [the bestowing of Magdeburg law (*jus Magdeburgicum*) upon the capital in 1387], of Sigismund Keistutowizs, Casimir, etc. The most recent additions are the

<sup>1</sup> Vide *Systematischer Katalog der russ. Bücher*, 2 Bände (mit Zusätzen), 1879-1888; and *Katalog predmetov Muzeja* (Catalogue of the objects of the museum), II. ed., 1885.

<sup>2</sup> See article Wilno, Johnson's *Universal Cyclopedia*.



archives of the Wilno Chapter, the archives of Ljublin, the archives of the Wilno Carmelites. In 1870 the Wilno archives numbered about 18,000 volumes and 1,700,000 documents.<sup>1</sup>

The searching, investigating, registering, and cataloguing of these documentary treasures, extending at present to 12 volumes of "Akty" with many single works, is being performed by the archæographic commission (Vilenskaja kommissija dla razbora i izdanija drevnych aktov), founded in 1864. In 1842, by the instrumentality and at the expense of Governor A. Semenov at Wilno, a temporary commission appointed for the investigation of the documents and their transfer to the archæographic commission at St. Petersburg was decreed.

*Witebsk.*—The central archives of Witebsk, situated in the ancient cloister of the Dominican monks and coming under the supervision of the ministry of the interior, was established in 1863 to store the judiciary and forensic documents of the old Polish governments of Witebsk and Mohylów (Mogilew) from the sixteenth century to 1800.

But, as in the Polish state the courts had administrative functions also, there are other valuable materials relating to the economic and political conditions, church history, and ethnography of those districts of the old Kingdom, amounting to 1,823 volumes.

Nevertheless, while there exists all the elements for the highest culture and education in this vast country, known for many centuries by the historical name of Lithuania, and called in the official Russian language the Country of the Northwest, it is at present perhaps the most inanimate country in Europe. According to Russian administrative division, Lithuania consists of the governments of Wilno, Grodno, Kowno, Mińsk, Mohylów, and Witebsk. It occupies a territory larger than the Kingdom of Italy, and has almost 9,000,000 inhabitants (that is about 40 per cent of the population of the Kingdom of Poland proper). The proportion of industrial wealth per inhabitant is 4 rubles annually against 23 rubles in Poland. Commerce is reduced to a minimum, and is mostly in the hands of Jews, who are more numerous in Lithuania than anywhere else in Poland.

Regarding public instruction, Lithuania occupies almost the lowest place among all the provinces of European Russia, only the district of Orenburg, with its Bashkir and Tartar population, ranks lower in this respect. There are but 20 secondary schools with 5,800 pupils (that is 40 per cent of what there were thirty years ago). Primary instruction is even more neglected. The most civilized province of the country, the government of Kowno, with 1,600,000 inhabitants, has but 12,500 children in the public schools.

Newspapers are almost entirely wanting. Beside the official Russian Wilenski Wiestnik (Messenger of Wilno) there is no journal in the

<sup>1</sup> Vide: Katalog drevnim aktovym knigam gub. Wilen, Grodn., Ljubl., Kovenskoj, 1872.

country, Polish publications being prohibited as well as the Polish language, since this country, though it was united with Poland for many centuries, is not considered as Polish territory.

#### HIGHER EDUCATION IN AUSTRIAN POLAND.

In Galicia (Polish Halicz), the Polish crown land of Austria, which comprises the old kingdoms of Galicia and Lodomeria, the duchies of Oswięcim (Auschwitz) and Zator, and the grand duchy of Cracow, the entire school system, with the exception of the universities and schools of technology and arts with university rank, is governed by the supreme council of schools at Lemberg. This supreme council of schools and the rectors of the universities of Cracow and Lemberg, who are also ex-officio members of the Galician Diet (Landtag), and the rector of the school of technology at Lemberg are directly responsible and subject to the minister of public worship and instruction in Vienna (Hungary has had her own minister of public instruction since 1867).

The primary schools in Galicia are steadily improving, but although the law enforces compulsory attendance at the national schools for children between 6 and 12 years, and although parents are subject to fines for neglecting to send them, the percentage of those children, who ought to attend the common schools is still very low.

The secondary schools are the gymnasia, real gymnasia, and real schools. A complete gymnasium provides for a course of eight years' study, divided into two parts of four years each. The lower course not only prepares for the higher, but is also complete in itself for those who are unable or unwilling to proceed further. In passing from one class to another the scholars undergo a very searching examination. The curriculum of an Austrian gymnasium does not differ greatly from that of the German gymnasia; only all the courses are conducted in Galician gymnasia and other secondary schools in the national language of the people, i. e., Polish and Ruthenian, the former being in the majority and greatly predominating in the west, the latter in the east.

Of the 11 universities of the Austro-Hungarian monarchy, Galicia alone has 2—Cracow and Lemberg. Of the 8 schools of technology, Galicia has 1 at Lemberg, admission to which generally is conditioned by a successful graduation from an upper real school, a gymnasium or a real gymnasium, which insures the possibility of imparting a high scientific education. The complete technical course extends over five years.

The standard of these institutions will be described somewhat in detail in the following pages.

*The New University of Cracow.*—The famous old Jagiellon University of Cracow (Uniwersytet Jagielloński w Krakowie) has been illustrated in its most general characteristics in the foregoing pages of this study. We have noticed its respectable age, the papal bull of May 12, 1364, which permitted King Casimir the Great to establish a "studium

generale in qualibet licita facultate," the many vicissitudes of its existence, its universal reputation and foremost rank at the end of the fifteenth century owing to the noble humanistic and astronomical studies at that stronghold of highest learning. For centuries the Uniwersytet Jagielloński formed the center of scientific life in Poland, was a strong advocate of religious toleration and of that noblest flower of the highest learning, freedom of thought and conscience. Roman Catholic, as the university always was, it sustained a long, protracted struggle with the Jesuit order, whose spirit it deemed harmful to the freedom of the Polish nation. But with the degeneration of the latter in its constant wars with Russia, the Cossacks, the Turks, the Swedes, the Brandenburgers, the Prussians, and in the eternal feuds among the magnates themselves, the university, too, degenerated and finally vanished entirely.

The university, completely reorganized, was reopened on October 18, 1817, and on October 5, 1826, was solemnly confirmed by the three protecting powers of the Republic of Cracow: Austria, Russia, and Prussia. In 1846 the Republic, and with it the university of the capital, became Austrian again, to increase the wealth of ten universities by a new brilliant star. But the attempt to introduce German as the official language into the philosophical, medical, and law faculties (the theological faculty being Catholic and Polish throughout could, of course, not be changed) by ministerial decree of October 29, 1853, failed. Between February 4, 1861, and April 30, 1870, the Polish language was gradually and completely restored to cultivate and to treasure up the valuable civilization of the first western Slavonic nation, a great and noble task which is being fulfilled with a peaceable and affectionate devotion.

The administration of the university in 1892 was conducted at an expense of about 339,550 florins, which included the establishment of the second course of the agricultural department in the philosophical faculty. The expenses of the fiscal year 1893 amounted to 393,794 florins, including 30,000 florins for the establishment of the third course of the agricultural department. The governmental contribution for covering the expenses was 379,151 florins. The budget of expenses for 1895 was 531,296 florins, of which 485,060 were paid by the Government.

*The Imperial Academy of Sciences.*—Closely connected with the university, if not actually a part of it, is the Imperial Academy of Sciences at Cracow which is composed of a body of the most eminent men in the mental and natural sciences. With the exception of the Academy of Sciences in Vienna, which had been proposed by Leibnitz, but was founded on May 30, 1846, and which publishes the great scholarly records of its sessions, the "*Fontes rerum Austriacarum*," the "*Scriptores ecclesiastici latini*," etc.; the former is the most important academy of sciences in the Austrian Monarchy. As for scholarship and brilliancy in Slavonic researches it surpasses even Vienna and accomplishes



for the western Slavonic world what the South Slavonic Academy of Arts and Sciences at Agram (Croatia) (*Jugoslavenska Akademija znanosti i umjetnosti*) accomplishes for the south and that of Petersburg for the eastern Slavonic world. Both the latter academies are older, it is true, the Agram Academy having been founded in 1836 as "*erudita societas*," and as an academy in 1861, while that of St. Petersburg (*Imperatorskaja Akademija nauk*) began its activity in 1725 with foreign academicians throughout. The Academy of Sciences at Cracow was founded only in 1872, taking origin from the Society of Sciences which had existed since 1815.

The intellectual movement of the Bohemian nation has brought about the youngest but most active academy in the Austrian Monarchy. The imperial consent to the statute for the establishment of the Bohemian Emperor Francis Joseph Academy of Sciences, Literature, and Arts (*Česká akademie císaře Františka Josefa pro vědy, slovesnost a umění*) was granted on January 23, 1890; on October 18 the first general assembly took place. On May 18, 1891, the solemn opening of the academy was celebrated. This academy is divided into four classes: (1) Philosophy, state, law, and social sciences, history, and archaeology; (2) mathematics, natural sciences, and medicine; (3) philology; (4) belles-lettres, fine arts, and music. The many publications of this academy are of the highest order and importance.

In fact among all the Slavonic peoples, not only in Austria and Russia, but also in the Danube Principalities, Bulgaria and Servia, this intellectual movement is going on and giving vent to its energy by the establishment of universities and academies of sciences.

The academy of Cracow has a fixed endowment of 16,000 florins from the Government; 20,000 florins in 1895. Its protector was Archduke Karl Ludwig (died a few weeks ago); the vice-protector is the Polish ex-minister of finance in Austria, the former professor of political economy at the University of Cracow, Julian Dunajewski; its president, Stanislaw Count Tarnowski, professor of Polish literature. The academy is divided into (1) the philological department, (2) the historico-philosophical department, and (3) the department of mathematics and natural sciences.

Since the greatest scholars of the Polish nation are members of the Academy of Sciences in Cracow (beside some eminent foreigners and the corresponding members), it may be appropriate to give the names of the actual members, to convey an idea of Poland's greatest scholars of the present time.

In the philological department [besides a few university professors of Cracow in the respective departments, Stefan Pawlicki, professor of dogmatics and religious philosophy; Fryderyk Zoll, professor of Roman law; Franciszek Kasperek, professor of international law and philosophy of law; Franciszek Piekosiński, professor of old Polish law; Ludwik Teichmann, professor of anatomy; Napoleon Cybulski, professor



of physiology; Franciszek Michał Karliński, astronomy and higher mathematics; Szczesny Kreutz, mineralogy; Józef Lepkowski, archaeology; Wincentz Zakrzewski, general history; Stanisław Tarnowski, Polish literature; Stanisław Smolka, Polish history; Józef Rostafiński, botany; Lucyan Malinowski, Slavonic philology; Edward Janczewski, anatomy and physiology of plants; Kazimierz Morawski, classical philology; Maryan Sokolowski, history of art; Emil Godlewski, agricultural chemistry]: Baudouin de Courtenay, University of Dorpat; Alex. Brückner, University of Berlin; Jan Gebauer, Prague; Józef Hampel, Budapest; Vatrosl. Jagić, Vienna; Anton Kalina, Lemberg; Wład. Nehring, Breslau; Court Councillor Julian Claczko; author Wład. Lozinski, Lemberg; Wład. Łuszczkiewitz, professor of the school of arts, Cracow; Anton Malecki, University of Lemberg; Wład. Spasowitz, University of Petersburg; Anton Petruszewitz, custodian of the cathedral at Lemberg; Stojan Novaković, prime minister, Belgrade; Sir Kasimierz Stronczyński, Piotrków; and 19 corresponding members. The director of this department is the classical philologist at the University of Cracow, Kazimierz Morawski.

These men represent the highest work that is being performed in the domain of Slavonic philology, language, and literature in general and Polish in special.

In the historico-philosophical department, Sir Alfred de Arneth and Leon Bilinski, directors of the House, Court, and State archives in Vienna; August Count Cieszkowski, replaced by Michał Bobrzynski, vice-president of the school council of Galicia, Lemberg; D. Mendelejew, Petersburg; Bishop William Fraknoi, Budapest; Udalrich Heyzmann, professor in Cracow; Wład. Tomek, University of Prague; Albert Kętrzyński, director of the Ossolinski Institute, Lemberg; Bishop Likowski, Posen; Edward Rittner, Vienna; Albert Sorel, secretary of the Senate, Paris; Józef Supinski, Lemberg; Jacob Caro, University of Breslau; Adolf Pawinski, University of Warsaw; Anton Randa, Prague; Isidor Szaraniewicz and Thad. Woiciechowski, Lemberg; Heinrich von Zeissberg, Vienna; and 18 corresponding members. The director of this department is the professor of Roman law, Fryderyk Zoll. There has never been in Poland such a scientific movement, especially in the domain of Polish and Slavonic history, as at present. It is perhaps only surpassed by the revival of national learning in Bohemia, where the Czech University of Prague was absolutely severed from the old common university with its German preponderance, and opened in the academic year 1882-83. The Bohemian technical high school in Prague was erected in 1868, and has been administered as a State institution since 1875. Owing to this scientific movement the historical sciences have been marvelously revived, but, although it would be unjust to limit the many historical scholars of the Polish nation, still the above names fairly represent the leaders of thought in that science.

There is one great Polish historian in the garb of a novelist who has not yet attained the rank of an academician; it is Henryk Sienkiewicz, but he has attained the rank of the foremost Polish historical novelist, and may be well compared with the great German historical novelists Gustav Freytag, Felix Dahn, and Joseph Victor von Scheffel, who have been overwhelmed with academical honors in Germany. As these great historical novelists have illuminated German history and made it popular and accessible to the broad masses of the German people more than the tremendous volumes of the *Monumenta Germaniæ Historica* could ever do, so has Henryk Sienkiewicz in his three admirable historical novels, *With Fire and Sword*, *The Deluge*, and *Rodzina Polonieckich*, performed the most masterly work for the illustration of the downfall of the Commonwealth under King Jan Kazimierz.<sup>1</sup>

In the mathematical scientific department, Benedykt Dybowski, University of Lemberg; Heinr. Ferd. Hoyer, Warsaw; Franz Mertens, University of Graz; Julian Niedzwiedzki, Lemberg; Louis Pasteur (deceased), Paris; Bronislaw Radziszewski, Lemberg; Eduard Strassburger, Bonn; William Thomson, Glasgow; Rudolf Virchow, Berlin; Wład. Zajaczkowski, Lemberg; Jan Franke, Lemberg; Marcell Nencki, University of Petersburg; Giov. Schiaparelli, director of the Astronomical Observatory, Milan; and 16 corresponding members.

This Imperial Academy of Sciences, in connection with the great Jagiellon University of Cracow, is undoubtedly the center of the highest learning in the Polish nation, and if Warsaw is still considered as the political capital, Cracow is surely to be considered as the intellectual seat of Polonism.

Cracow and Lemberg are the Polish universities par excellence; but as the latter has the strong Ruthenian element of Galicia to contend with, the former is the rallying point of the Polish students of the three adjoining countries, who wish to be educated in the Polish spirit and culture. The number of students in 1892 was 1,227, which increased in 1893 to 1,283, but fell off in 1894 to 1,242, and rose to 1,290 in 1895 (summer semester, 1,230). Of these, 1,137 were regular students who had fulfilled all the preceding conditions before matriculation—i. e., were provided with the certificate of maturity for university studies—and 105 were hearers who are not admitted to the State examinations without having subsequently fulfilled the conditions required. There were 66 (Catholic) theologians, 486 students in law, 517 in medicine, and 173 in philosophy. In 1895 there were in theology (Catholic) 69, in jurisprudence 608, in medicine 438, in philosophy 128, in agriculture 47, and in pharmacy 14. The present rector is Stanislaw Smolka.<sup>2</sup>

The university is in its four faculties well represented by the most

<sup>1</sup> Since this section was written I find in *Minerva*, *Jahrbuch der Gelehrten Welt*, 1895–96, that the celebrated Polish author has been elected to the full membership of this distinguished body.

<sup>2</sup> The rectorate of Professor Kreutz has just been announced for the ensuing year.

distinguished professors, mostly Poles. There are 7 full professors in the Catholic theological faculty who teach divinity in a four years' course, as follows: Pastoral theology, exegesis of the New Testament, church history, general dogmatics and religious philosophy, special dogmatics, exegesis of the Old Testament, Semitic languages, canon law.

The faculty of law and political sciences is represented by 8 full professors, 4 associate professors, and 4 privat-docenten, who prepare the students for the legal profession in a four years' course. Instruction is given in Roman law, philosophy of law and international law, Austrian civil law, Austrian political and administrative law and statistics, penal law and pleading, canon law, old Polish law (by 2 professors), political economy, commercial and banking law, Austrian law of finance and finance sciences, and German law. The Polish and local Galician legislative conditions, however, do not seem to be as well represented as in the same faculty of the Lemberg University. Two great seminaries—that of the legal sciences and that of the political sciences—provide for the practical education of the students.

The medical faculty is conducted by 12 full professors, 11 associate professors, and 7 privat-docenten. It is safe to say that no branch of the medical sciences is neglected, and it is only to be stated that the instruction in medicine, distributed over a course of five years, is as complete as possible. Practical education is given to the students in the medical clinic, in the surgical clinic, in the anatomical-surgical cabinet, in the ophthalmological clinic, in the gynecological clinic, in the aseptic-gynecological laboratory, in the pathological-chemical institute, the anatomical institute, the pharmacognostical institute, the physiological institute, the pathological-anatomical institute, the institute of veterinary surgery, the medico-forensic institute, the pediatric clinic, the clinic for skin and venereal diseases, and the institute for general and experimental pathology. All these medical institutions are carried on at an annual expense of 42,728 florins.

The philosophical faculty has 23 full professors, 5 associate professors, 11 privat-docenten, and 1 lector in French. Twelve members of this faculty belong also to the Academy of Sciences. The branches taught in this faculty are astronomy and higher mathematics (an astronomical observatory, founded in 1791, furnishes it with the scholarly apparatus for research); mineralogy (mineralogical institute); archæology (archæological institute); general history, Austrian history, and Polish history (historical seminary); Polish literature and Slavic philology (Slavonic seminary); botany, anatomy, and physiology of plants (botanical laboratory), to which department the botanical garden of Cracow, administered at an annual cost of 3,500 florins, is attached; mathematics with a mathematical seminary; geography; German philology, with a seminary; classical philology, with a philological seminary and proseminary; romance philology; physics, with a physical institute; history of art, with a corresponding institute; geology



and paleontology, with a geological institute; chemistry and agricultural chemistry, with two chemical institutes and laboratories and an institute for agricultural chemistry; zoology and zootomy, with the two respective institutes; farming and agriculture, cattle raising, with institute; comparative anatomy; philosophy, pedagogics and didactics, and Sanscrit, represented only by 1 privat-docent, respectively. The laboratories and institutes are conducted at an expense of at least 12,100 florins a year.

*The university library.*—The library attached to the university is one of the oldest and richest in the Austrian Monarchy. At the end of 1892 it contained 213,779 works, in 283,858 volumes; 5,150 MSS., in 6,485 volumes; 1,702 maps, 7,693 engravings and pictures, 3,057 musical works, and 9,476 coins and medals. At the beginning of 1895, 224,774 works, in 300,029 volumes; 5,321 MSS., in 6,755 volumes; 1,751 maps, 7,730 engravings, 3,222 musical works, and 9,481 coins and medals. The library has a most interesting history, which has been excellently narrated by G. S. Bandtke, *Historia biblioteki Uniwersytetu Jagiellońskiego w Krakowie*. Krak. 1821.<sup>1</sup>

When King Władisław Jagiello reorganized the University of Cracow, in 1400, and granted to it rich endowments and revenues, a library was also founded and was continually improved. Endowment was left to it from time to time by public-spirited citizens. Andreas Olszowski, archbishop of Gnesen, left in 1671 the sum of 10,000 florins for the opening of a reading hall. In 1775 the newly established commission of education arranged the library, and attached to it and catalogued all the distracted collections of the bursæ and collegia of the university. After the third partition the library fell a share to Austria, to which State it has belonged ever since, except during the time of the independent republic of Cracow (1809–1846).

The manuscripts of the library are catalogued by Wład., Wiśłocki *Catalogus Codicum manuscriptorum bibliothecæ universitatis Jag. Cracoviensis*, Cracov. 1877–1881, 2 vols. The other treasures are described by Karol Estreicher. *Biblioteka Jagiellońska*. Kraków 1881, and *Przechadzka (guide) po bibliotece Jagiellońskiej*. Kraków 1882.

The library is maintained at an annual cost of 20,570 florins (21,470 florins in 1895) in addition to the regular fees, and was used by 2,356 readers and 2,383 guests; 6,000 works, in 15,000 volumes, were loaned out in the year 1894.

*The State archives.*—The archives of the town and rural forensic affairs of the palatinate of Cracow (*Archivum actorum castrensium et terrestrium palatinatus Cracoviensis*) were founded at the end of the eighteenth century by the unification of various smaller archives. They contain *Acta judicii capitanealis Cracoviensis* 1428–1792, *Acta judicii terrestres Cracov. colloquiorum generalium, judiciorum in curia regis*

<sup>1</sup> Cf. also Matejko, *Geschichte der Univ.-Bibliothek zu Krakau*, 1864, 8°, vide *Minerva*, p. 381.



et in conventione regni 1338-1642, 1767-1797, Acta juris supremi theutonici castri Crac. 1380-1794, Acta magnæ procurationis in arce Cracov. 1549-1794, Acta consularia et scabinalia civitatis Cracov. 1392-1797, Acta castra Bieicensis 1436-1793, Acta terrestria Czechoviensia 1401-1783. These archives are endowed with 6,000 florins.

As to secondary schools, Cracow has three gymnasia—that of St. Anne, founded in 1588, with 560 pupils; that of St. Hyacinthe, founded in 1858, with 458 pupils, and the Third Imperial Gymnasium, founded in 1883, with 497 pupils. There are several real schools, besides two theological seminaries. The following institutions supply instruction in all the other pursuits not covered by the university and the polytechnic school: The Polish State Commercial College, with 86 pupils and 2,000 florins state, subvention; the Agricultural College, the Tradesmen College, the Czartoryski Museum,<sup>1</sup> and the Academy of Fine Arts. The great painter Jan Matejko, who died in 1893, was the director of the last-named institution. Two State teachers' seminaries—one for males and one for females—both founded in 1871, have 183 and 240 candidates, respectively. The official language is Polish.

The Polish State Industrial School, with an architectural, mechanical engineering, and chemical department, and workshops for decorative drawing and designing, has 158 pupils and 135 in the trade school attached to it.

*The University of Lemberg (Lwów).*—An admirable history of the University of Lemberg, of 442 large octavo pages, was published at the end of the year 1894 by the two professors of the university, Drs. Ludwik Finkel and Stanisław Starzyński, under the title *Historia Uniwersytetu Lwowskiego, Lwów, Nakładem Senatu Akademickiego*, 1894. The older history up to the year 1869 was written by Professor Finkel, the last twenty-five years of its development by Professor Starzyński. For the first time, all the archives were opened and searched by the authors to give an authentic account of the history of Galicia and Lodomeria as related to the university.

After an introduction of 9 pages by the rector of 1894, Ludwik Cwikliński, a list of the rectors of the university is given from 1784 to 1894.

The academical schools before the foundation of the university are treated at length. In the same year in which the Jagiellońska Akademia was founded, two months after the issue of the letter patent erecting the studium generale at Cracow which was "to attract the dwellers of distant lands" (*longinquarum incolarum regionum ad eius allicere accessum*),

<sup>1</sup>This museum was originally founded, in 1813, by Prince Adam Czartoryski, at Puławy, on the Vistula, and taken to Petersberg in 1830, but a part of it was rescued and carried to Galicia and Paris. In 1876 the whole collection was carried to Cracow. The museum contains 100,000 volumes, 5,070 MSS., and 1,202 documents. *Catalogus manuscriptorum musei principum Czartoryski Cracoviensis*, edid. Jos. Korzeniowski. Fasc. I-III, Crac. 1887-1891; see *Minerva*, p. 383; 1895-96.

according to the *Codex diplomaticus univ. studii generalis Cracoviensis*, ed. 1870, King Jagiello ordered a high school ("szkoła metropolitalna") to be erected at Lemberg and to be governed by the commune itself (*ut ipsi eives scholas construant edificent et reforment rectoremque scholarum elegant valentem et plebano presentent.*)<sup>1</sup> For two centuries this metropolitan school was in a flourishing condition. Its pupils were divided in three classes—*primani, secundani, et tertiani*. Instruction was given not only in the seven arts, but also in Latin, and with the dawn of the renaissance, in Greek, too. The graduates of this school study philosophy in Cracow, and in the foreign universities of Padua, Bologna, Rome, and Paris, whence they bring home their doctorates. Among its many distinguished scholars the three greatest names of the early epoch of Polish humanism—Bursius, Ursyn, and Simonides—are grouped around this school in the last quarter of the sixteenth century until they are drawn to the famous new academy founded by Jan Zamoyski.<sup>2</sup> "Whatever there is of brilliant scholarship in our city," write the aldermen of Lemberg as late as 1662 to the rector of the University of Cracow, "is derived from the Metropolitan Academy. Our Senate, our Government, is composed in its majority of pupils of this academy."

When about the middle of the sixteenth century, during the storms of the Reformation, not only the Academy of Cracow, but all the other schools of renown began to become disintegrated, there sprang up Protestant, Calvinist, and Dissenting schools, and against them Catholic schools, ready and prepared to war for the old faith. All the other schools fell, as it were, into lethargy waiting for better times. With especial zeal the Society of Jesus undertook to spread education among the Catholic youths to make them strong for the impending battle. The Jesuit schools, called *collegia*, sprang up in all the Catholic countries. Introduced into Poland in the year 1564 by the famous Cardinal Hosius, the founder of the still flourishing Lyceum Hosianum in Braunsberg (Prussia), they established colleges in all the larger towns of Poland. In 1584 Jacob Wujek, S. J., a famous Bible scholar, and Benedykt Herbest, S. J., some time professor in the Metropolitan Academy, came to Lemberg and began scholastic work. In the next year a rebellion arose against the Jesuit fathers, but Aquaviva, the then general of the order and the author of the celebrated *Ratio-studiorum* of the Jesuit schools, succeeded in establishing a permanent settlement in 1591, the first prefect (superior) of which was Martin Laterna, a scholar of the Braunsberg school and of the Academy of Wilno, the adviser of King Stephen Batory, and the author of the *Spiritual Harp*. In 1596 there were already in the Lemberg college 6 professors and 1 superior. In 1608 it was raised in rank, had 32 professors, among whom were 16

<sup>1</sup> Cf. also H. Denifle, *Die Entstehung der Universitäten des Mittelalters bis 1400*, Berlin, 1885, p. 9.

<sup>2</sup> Cf. J. Kallenbach, *Les humanistes polonais* Fribourg, 1891, pp. 19-45; also my article "Zamoyski," *Johnson's Universal Cyclopedia*.

priests, and 200 students. The humanities were taught by 3 professors, moral theology by 2, controversial theology by 1. In 1612 a philosophical, in 1613 a mathematical course, were added. In 1633 the number of students reached 550 and the college became more flourishing; but the frightful wars that swept over Poland, the Cossack and Tartar invasions, the Russian, the Swedish, the Brandenburg wars, so graphically described in Henryk Sienkiewicz's masterly historical novel, *The Deluge*, gradually ruined the college. In 1649 there were only 26 students; in 1653 only 4 theological hearers; in 1656 the theological course was entirely closed.<sup>1</sup>

When the waters of the deluge that had swept over Poland began to subside, King Jan Kazimierz turned his attention to the city of Cracow, which almost lay in ruins. In January, 1661, was issued from the royal chancery the order for the foundation of the academy or university of Lemberg, which was to be placed on the same footing with the universities of Cracow and Wilno. The very interesting Latin document is reprinted on pages 21, 22, and shows the pride of the King in the Polish institutions of learning and his desire to emulate his great predecessors. The university was to be founded under the auspices of the Jesuits:

\* \* \* *faciliter ac libenter in animum induximus, ut Collegio Leopoliensi Societatis Jesu Academicæ dignitatis accessio Nobis annuentibus fiat, titulusque Universitatis deferatur. Damus igitur potestatem in eodem Leopoliensi Societatis Jesu Collegio Generale Studium in omni licita facultate constituendi: Theologiæ nimirum tam Scholasticæ quam Moralis, Philosophiæ, Matheseos; Juris utriusque, Medicinæ Liberaliumque Artium et Disciplinarum ac Scientiarum omnino omnium, quascunque prædicti patres Societatis Jesu tractandas ibidem per se vel per alios censuerint, pro ipsorum arbitrio ac instituto, consuetoque Academicarum atque Universitatum more et praxi.* \* \* \*

But there was an outcry all over the Kingdom against this foundation. The Jagiello university especially resented "the interference of the Jesuits with its own rights and privileges." The Academy of Zamojski, too, opposed it. Even the commune of Lemberg—senatus populusque Leopoliensis—arose against the foundation. And, indeed, the school was never successful; in 1672 only one class was opened; in the humanities and philosophy there were only a few students. Even when, in 1677, the number rose to 500, among whom were the sons of the most distinguished families, and, though physics and anatomy were taught, for which no privilege existed, as appears from an edict of Augustus II (May 13, 1706), "that only the one university of Cracow shall have the right of the four faculties," the academy could not stand against the public opinion of the whole country. In spite of a royal

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<sup>1</sup>The principal source for the history of this college is a MSS. in the Imperial Library of Vienna: "*Historia collegii Leopoliensis Societatis Jesu manu propria Matthiæ Wielowiez pro tunc (1664) rectoris diligentissime collecta, etc., descripta ad annum 1665, quo anno obdormivit in Domino.*" The best account on the Jesuit colleges in Austria is given by J. Kollé, *Die Jesuiten-Gymnasien in Oesterreich*, Prague, 1873.



edict of 1763, however, to close the academy, and a papal renunciation of the bull granting its establishment, instruction was carried on till the dissolution of the order by papal decree. (Bull of Clemens XIV of 1773.) Meanwhile the political upheaval of the first partition of Poland entirely changed the constellation of the affairs of Lemberg as well as those of the whole realm.

Under Austrian rule Galicia had the advantages of the school reform carried on by Empress Maria Theresa in all her dominions.<sup>1</sup> Count J. A. Pergen, the director of the Oriental Academy in Vienna, who had elaborated a masterly plan of public education, but a rash and radical man who would "with one stroke of the pen revolutionize everything," was appointed the first administrator and governor of the newly acquired province of Galicia with almost sovereign powers. The edict of appointment<sup>2</sup> reads as follows: "*Cum plena facultate, ut nomine Nostro (i. e., Mariæ Theresiæ (occupatas provincias administraret et quidquid ad ordinandam instæ administrationis normam spectare visum fuerit, in opus redigat.*" First of all the bad sanitary condition of the country and the great mortality made the establishment of a medical college indispensable; physicians, surgeons, and midwives were wanting; the other higher schools could be gradually founded. Thus a number of eminent medical men were dispatched from Vienna to establish the school and to organize medical service over the new province.

The public schools, being in a wretched condition, had to be reorganized and put under proper inspection. The Jesuit college and the academy were transformed into an Austrian lyceum, professors for the German language were appointed, chairs for logic, metaphysics, and ethics as well as for all the branches of jurisprudence were established, even mechanics and technology, cartography, and geodesy for the surveying of the new territory were taught. In 1776 the Collegium nobilium or Collegium Theresianum (Ritterakademie) was established for the sons of the noble families of Galicia. All these new schools were administered by a special commission in Lemberg established by the Empress for the Galician schools (in *Studiensachen aufgestellte k. k. Commission in den Königreichen Galicien und Lodomerien*).

The Empress conceived the idea of founding a university in Lemberg as early as 1774. In 1776 the imperial chancery wrote to the Lemberg government on the question, "whether the city would be suitable for a university rather than Zamość," where an academy already existed, or Przemyśl which lay in the center of the country and was the seat of a bishop. But the plan did not mature during her life. An edict of 1777 speaks only of "several trunks (corpora) of higher schools;" there was not one large body which could be called a university. The war of the

<sup>1</sup> Cf. J. A. Helfert, *Die Gründung der österreichischen Volksschule durch Maria Theresia*, Prague, 1860; Adolf Beer und Franz Hochegger, *Die Fortschritte des Unterrichtswesens in den Kulturstaaten Europas*, Vienna, 1867.

<sup>2</sup> Cf. *Edicta et Mandata universalia Galiciæ*, Lwów, 1773.



Bavarian succession, the difficulties with Prussia, and the death of the great Empress in 1780 prevented the establishment of a great university in Lemberg. Her noble son, Joseph II, finished in 1784 what his great mother had begun,<sup>1</sup> and the present Emperor laid the last corner stone by the establishment of the medical faculty in September, 1894.

Emperor Joseph II, the most enlightened ruler of Austria in the last century, wanted the university to be built anew, not handicapped by any old privileges and duties, as a monument of modern times. Roman Catholic and Greek orthodox theology were to be treated side by side. The German and Roman law (*ius publicum für Reichsgeschichte und Staatenkunde*), heretofore the only branches taught in the faculties of law, were to be enlarged for the special needs of the Polish population (Wolf, p. 6: "Da diese Kanzeln sich meistens nur mit dem deutschen Staatsrechte und der deutschen Staatsgeschichte beschäftigen, diese aber für die galizischen Einwohner nie von einem besonderen Nutzen sein kann"). Never was a university founded with such a high spirit of liberty, generosity, and toleration for the individuality of a conquered nation, never were the good wishes for the divided nation more sincerely expressed than in Emperor Joseph's diploma of October 21, 1784:

\* \* \* Die landesväterliche Sorgfalt, welche unser vorzügliches Augenmerk jederzeit auf die Bildung der Jugend lenket, hat uns bewogen für unsere Königreiche Galizien und Lodomerien, dann die Herzogthümer Oswięcim und Zator eine hohe Schule oder vollständige Universität in der Hauptstadt Lemberg zu errichten. \* \* \*

From such beginnings the university arose and through many vicissitudes reached its present high standard, in numbers the fourth university of the Austrian Crown (after Vienna, Budapest, Prague). As to the Austrian possessions of the old Kingdom of Poland the University of Lemberg is the second great center of Polish learning of the highest order, though in numbers it surpasses even the University of Cracow by 141 students (cf. *Minerva*, 1895-96). Lemberg (*Lwów*), being the principal city in the old palatinate of Little Russia (*Ruska*) in the Polish and restricted sense of the term, has a strong *Mało-Russian* or *Ruthenian* population with their own language, to which large concessions must be made in the university and higher and lower schools. The *Staropigiński* Institute is devoted to the encouragement of the study of the *Mało-Russian* language, and has issued some important works, such as editions of old South Russian chronicles. A good library is attached to the institute.

King Augustus III intended to establish a university in Lemberg, and even obtained the sanction of Pope Clemens XIII in 1759; but the disturbances of the Seven Years' war did not allow this plan to mature. Only in 1784 was the old plan realized by the great and noble reformer,

<sup>1</sup>G. Wolf, *Geschichte der Lemberger Universität*. Kleine historische Schriften, Vienna, 1892.

Emperor Joseph II; the university later on, bearing the name "K. K. Franzens-Universität in Lemberg (Cesarska Krolewska Uniwersytet imienia Cesarsza Franciszka I we Lwowie)," was founded at this time without the sanction of the Pope. On the 3d of November, 1784, the solemn inauguration took place; but it was not prosperous at first, and in 1803 the university was changed into a simple lyceum. On the 21st of November, 1817, it was reestablished and reorganized as a university, without a medical faculty, however, which was established only in September, 1894. During the Polish Revolution, in 1848, the bombardment of the city also damaged the university building, but the most irreparable loss was the burning of about 40,000 volumes of books.

The old policy of the Austrian Government having been the Germanization of its Polish domain, the language for instruction and affairs was German throughout until the 22d of March, 1862. The necessity of allowing perfect freedom in the use of the native Polish and Ruthenian languages was then acknowledged. Since July 4, 1871, the Polish language has been generally used. In the theological faculty, however, the lectures and seminary instruction are given in the Latin language, with the exception of pastoral theology, catechetics, and methodology as well as pedagogics which are given in the Polish and Ruthenian (Russian) languages. In the law faculty all lectures are delivered in Polish excepting the courses on the Austrian penal laws and penal process by 1 professor and 1 privat-docent which are delivered in Ruthenian. Of course, Ruthenian philology and literature and German philology and literature are taught in their respective languages. With the establishment of the medical faculty in the academic year 1893-94, the university is now complete.

The financial management of the university, which, of course, is a State institution, was in 1892 conducted with an appropriation of 106,800 florins, which rose to 245,356 florins during the fiscal year 1895, the Government contributing 213,674 florins. An extraordinary appropriation of 14,100 florins served for the purchase of the scientific apparatus in the chemical laboratory (1,000 florins), changes in the university building (4,100 florins), last installment for the erection of the chemical institute (4,000 florins), second installment for the scientific equipment of the latter institute (1892).

In 1893 the university expenses amounted to 169,805 florins, toward which sum the Government had to contribute 158,578 florins.

The university, like all the other Austrian universities, is divided into four faculties—the theological, the law, the medical (about which no data have yet been given out), and the philosophical faculties, the latter embracing both the historico-philological and the physico-mathematical faculties of Warsaw and most of the other Russian universities.

At the head of the University of Lemberg stands the Imperial Royal Academic Senate (Cesarski Krolewski Senat Akademicki), composed of

the rector magnificus,<sup>1</sup> at the same time the president of the academic council, the prorector, i. e., the rector of the preceding year, the deans (dziekani) of the faculties, and the deans of the preceding year (pro-dziekani), 1 delegate from each faculty, respectively, and the secretary and notary, 12 members in all.

The academic senate takes care of the general affairs of the university, its property, the discipline of the collegium of instructors, and decides all disputes that may arise between the faculties. Disputes between the senate itself and the faculties are decided by the ministry for cultus and education.

The matriculation of students as regular hearers can take place only after they have passed the examination of maturity in a gymnasium. At the beginning of the academic year (October) 1892-93, there were 1,283 matriculated hearers in the University of Lemberg. In October, 1893, there were 950 regular and 124 special hearers, distributed as follows: 322 in theology, 585 in law, 167 in philosophy. In the summer semester, 1894, there were 1,413 students. In 1895 the number of matriculated hearers was 1,445.

The Catholic theological faculty of Lemberg is composed of 8 professors, 1 privat docent, 2 instructors (nauczyciele) for Polish and Ruthenian catechetics and methodology, respectively, and 2 adjuncts, all of them being priests and doctors of theology.

The study of theology, like that of law and philosophy, is distributed over four years. The curriculum in the summer semester 1893-94 will give a fair example of what is being done in theology at the University of Lemberg:

*First year.*—General dogmatics, five hours a week. Sacred history (historia sacra) from the beginning of the world to Christ's birth, including biblical geography and archæology and a special introduction to the Holy Scriptures, four hours a week. Exegesis to Jesaias from the Latin Vulgate, two hours a week. Exegesis to First Book of Samuel from the original Hebrew text, three hours a week. Grammar of the Arabic language with practical exercises, two hours a week. Philosophico-theological propædæutics, four hours a week.

*Second year.*—Special dogmatics, five hours. Introduction to the New Testament (second part), three hours. Exegesis of the New Testament from the text of the Vulgate, three hours. Exegesis of the New Testament from the original Greek text (Epistle of St. Paul to the Romans), three hours. Higher exegesis (exegesis sublimior) from the original Greek text of the Second Epistle of St. Paul to the Corinthians, one hour.

*Third year.*—Moral theology, five hours. Church history, five hours. Pedagogics, two hours (Polish and Russian).

*Fourth year.*—Pastoral (practical) theology, five hours (Polish and Russian). Institutions of canon law, five hours. Catechetics and methodology, five hours (Polish and Russian).

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<sup>1</sup>The rector magnificus in the Austrian, as in the German universities—in opposition to the Russian universities, where he is appointed for an indefinite time, and like the American university president—is elected from the number of the professors ordinarii or emeriti for one year from each faculty alternately by a body of the professors (4 from each faculty) under the parting rector as chairman.



The distribution of students was as follows:

|                            | Theology. | Law. | Philosophy. | Total. |
|----------------------------|-----------|------|-------------|--------|
| Hearers.....               | 338       | 813  | 186         | 1,337  |
| Regular matriculates.....  | 296       | 788  | 113         | 1,195  |
| Hospitants.....            | 42        | 27   | 73          | 142    |
| Austrians.....             | 329       | 787  | 173         | 1,239  |
| Foreigners.....            | 9         | 26   | 13          | 48     |
| Poles.....                 | 90        | 672  | 146         | 908    |
| Russians (Ruthenians)..... | 248       | 137  | 40          | 425    |
| Germans.....               | .....     | 3    | .....       | 3      |
| Italians.....              | .....     | 1    | .....       | 1      |
| Roman Catholics.....       | 89        | 447  | 102         | 638    |
| Greek Catholics.....       | 248       | 149  | 40          | 437    |
| Greek Orientals.....       | .....     | 1    | 1           | 2      |
| Armenian Catholics.....    | 1         | 4    | 3           | 8      |
| Protestants.....           | .....     | 5    | 1           | 6      |
| Hebrew.....                | .....     | 206  | 39          | 245    |

Among the 73 hospitants (students not having the gymnasial certificate of maturity) there are 40 students of pharmacy.

The law faculty of the university is composed of 15 professors and 5 privat-docenten. The circle of studies contains the various aspects of the Pandects (Roman law) taught by 3 professors, German law, Catholic church law, philosophy of law, international law, encyclopedia of law and the political sciences, Austrian private law, Austrian penal law and equity pleading (in Polish and Ruthenian), political economy by 2 professors, Austrian civil law, Austrian banking law, Austrian statistics with a reference to the neighboring European States, commercial law, economic administration of Galicia, Polish private law and pleading, Austrian political law, science of political accounts in the Austro-Slavonic countries.

One of the most remarkable and beneficial features of the Lemberg law faculty are the numerous juridical seminaries, conducted by the most eminent professors: The seminary of administrative and political sciences, the seminaries of German international law, of Polish law, of canon law, of penology, of Roman law, and the seminary of political economy.

The philosophical faculty consists of 21 professors, 11 privat-docenten, 3 docenten, and 3 instructors in modern languages (analogous to the lectores of the German and Russian universities).

In the philosophical department proper the following branches were taught in the last summer semester: Logic with regard to the needs of the candidates for the middle or secondary schools (*szkół średnich*); elucidation of John Stuart Mill's Utilitarianism; methodology of the mathematical and cognate sciences; on the task and method of academic studies; introduction to the history of philosophy.

In the department of history and its auxiliary sciences, extensive studies in Austrian, Polish, classical, and universal history were conducted: The history of the Austrian State from the beginning of the Thirty Years' war to the close of the Karlowitz peace (1618-1699); history of the Slavonic peoples and states within the Austro-Hungarian



Monarchy; history of Poland and Lithuania in the fifteenth and sixteenth centuries; Polish diplomacies; survey of the history from the downfall of the Roman Empire to the thirteenth century; Italy at the time of the Renaissance; modern history; history of the pragmatic sanction; Raphael's life and works; history of Polish art in the nineteenth century. Two historic seminaries supply practical exercises for historical investigations. A full chair for the study of geography is provided.

The department of philology and literature has a classical and a modern division. The curriculum of studies is excellent and complete. The classics have had such an old citizenship in Poland that the standard of classical studies in the University of Lemberg can be stated as simply the highest possible. A philological seminary and proseminary aids in the very best training of the students in classics.

In the modern division, Polish and Slavonic literature are naturally the foremost. But the German language is also excellently represented; the history of German literature was studied last summer, and in the middle high German division of the Germanic Seminary Gudrun was treated. Unfortunately there is no scientific treatment (in the university sense) of English philology and the Romance languages, the former being represented only by one instructor (*nauczyciel*) twice a week, the latter by one instructor five times a week. Polish and German stenography are also taught.

The Slavonic studies are so much the better represented in the following courses: History of Polish literature from the second half of the tenth to the end of the fifteenth century, seminary exercises in the history of Polish literature, scientific Polish grammar, an elementary course in Old Slavonian, reading and interpretation of Servian poets. There are courses also in the history of Russian literature from 1709 to 1848, Old Slavonian and Russian language, seminary practice in Russian philology, which are conducted in Ruthenian.

Equally good and complete is the department of the mathematical and cognate sciences, with the following courses: Optics, thermodynamics, physics, electricity, magnetism, all branches of higher mathematics (with two mathematical seminaries), mineralogy, geology, geology of the Carpathian Mountains, botany, chemistry, pharmacognosics, etc. All these various scientific studies are properly aided by corresponding laboratories and museums: The physical museum, the meteorological observatory, the chemical laboratory (with a complete scientific apparatus), the mineralogical museum, the botanical museum and laboratory (with herbaria and collections), a botanical garden, a zoological museum, a pharmacognostic collection, an anatomical and physiological collection. More than 7,000 florins are spent on these laboratories every year. The course in pharmacy is usually completed in two years in scientific education and laboratory work in the botanical, chemical, and pharmaceutal laboratories.

The university library was founded at the same time as the university. The Garelli library, containing about 11,000 volumes, which was combined with various libraries of abolished Jesuit colleges after the suppression of the Theresian Academy in Vienna, formed the original stock of the Lemberg University library. It contained at the end of 1892, 120,900 volumes, 396 manuscripts, 241 documents, and 10,657 coins and medals. The financial support of the library amounts to 18,073 florins a year for salaries and purchase of new books.

This valuable library is fully described in Karl Reifenkugel's work, *Biblioteka uniwersytecka we Lwowie*, in the magazine *Przewodnik naukowy i literacki*. Lemberg 1873.

*Count Ossoliński Library*.—Besides the university library and as a supplement for the documentary study of Polish history, there is in Lemberg another great library of paramount importance, which is exceedingly rich in manuscripts and early printed Slavonic books; it is the Count Ossoliński National Institute (*Zakład narodowy imienia Ossolińskich*). It was founded in 1817 by Joseph Maximilian Count of Tenczyn and opened to the public in 1826. The aim of this beneficial institute is the collection of printed works, manuscripts, pictures, engravings, etc., and of antiquities of Polish origin, the publication of manuscripts and important works in its own printing office, aid to poor deserving Polish students, and the maintenance of a public reading hall.

There are in the library 91,400 printed volumes (besides 8,640 duplicates), 3,496 manuscripts, 1,168 documents, 2,810 autographs, 25,240 engravings, 856 pictures, 2,200 museum objects, 670 weapons, 1,880 maps and charts, 18,100 coins, and 4,237 medals. The report of 1895 gives 93,550 books (besides 8,740 duplicates), 3,601 MSS., 1,174 documents, 2,851 autographs, 25,511 engravings, 866 pictures, 2,237 museum objects, 670 weapons, 1,892 maps, 18,100 coins, and 4,237 medals.

Among the many publications on the treasures of the Ossoliński Library perhaps the most important are: *Biblioteka Ossolińskich*, *Zbiór materiałów do historyi polskiej* (collection of material for Polish history), Lwow, 1874 ff.; *Catalogus codicum manuseriptorum Bibliothecæ Ossolinianæ Leopoliensis*, Tom. I, II, III (still appearing). The institute had, in 1893, a fortune of 545,000 florins. The expenses were 17,780 florins. The Polish magnate, Prince Andreas Lubomirski, is the present curator of the institute.

*Archives for the Grod and Terrestrial Court Documents of Poland*.—These archives, founded in 1878 as a State institute, afford an indispensable mine of information to the student on the old Polish town and country court institutions and the forensic conditions of Galicia in general. It contains the documents of the ancient grod and terrestrial courts of the palatinates of Reussen, Cracow-Sandomir, and Belz and the starostaships of Oswięcin (Auschwitz) and Zator for the years 1409–1735.

The appropriation for the archives in 1894 was 6,000 florins.

The documents have been edited in 11 volumes. "Akta grodzkie i ziemskie," Lemberg, 1868-1886. (First volume edited by a commission; second to eleventh volumes by H. Liske); vide *Minerva*, p. 410.

*The Imperial Royal School of Technology in Lemberg.*—In the same year that the University of Lemberg was reorganized (1817) the first real school (Realschule) of Galicia was erected and thus a new stimulus given to the technical sciences. The school developed so that in 1835 a separation of the technical and commercial branches could take place. In 1843 this real and commercial academy was extended by a technical course, out of which gradually an academy of technology grew up. In 1846, when the Republic of Cracow was conquered by Austria, the institute of technology of that city soon outreached that of Lemberg, which lost in importance.

In 1871 the Polish language was introduced officially and the academy was built up as a school of technology (with the rank of a university) by the founding of new chairs. The regulations of 1872 put it on an equal footing with the other Technische Hochschulen in Austria, like Graz, Brünn, Vienna, Budapest, Prague (German and Czech).

The technical high school of Lemberg, like all the other Austrian high schools, consists of four professional schools—i. e., the school of engineering, of architecture, of mechanical engineering, and the chemico-technological school. The course in the schools of engineering and architecture requires five years, that in the other two schools four years. Regular students must have the certificate of maturity from a secondary (middle) school or a gymnasium, in which latter case they have to give sufficient proof of efficiency in geometry and free-hand drawing. Hospitants must be 18 years of age and give sufficient proof of their ability to follow the courses.

The administration of the institute in 1892 was carried on at an expense of 101,900 florins; in 1893, 105,648 florins, toward which the State had to contribute 100,975 florins; in 1895, 113,264 florins (107,445 florins Government contribution). In the same year there were 188 regular students and 12 hospitants in the school, and in 1895 227 students and 34 hospitants.

The instruction in these four branches is given by most eminent professors in all the technical branches usually taught in such schools, besides studies specially adapted to an Austrian school of technology, as, for instance, a course in taxation of whisky, beer, sugar, and mineral oils, encyclopedia of the science of forestry, Austrian political economy, and commercial and banking law. There are in the institution 19 professors, 9 honorary docenten, 11 privat-docenten, 1 lector in German philology, and 3 teachers in French, English, and water-color painting, respectively.

The school has a laboratory for general chemistry (yearly appropriation, 900 florins; extra allowance, 200 florins), a laboratory for chemical technology (yearly appropriation, 900 florins; extra allowance, 200



florins), a physical cabinet (600 florins), a technological cabinet (600 florins), an electro-technical institute (500 florins), a mineralogico-geological collection (400 florins), a collection of natural historic objects (210 florins), an observatory for higher geodesy and spheric astronomy (200 florins), collections of apparatus for mechanical engineering (700 florins), practical geometry (600 florins), architecture (Hochbau) (500 florins), engineering sciences (500 florins), mechanics (315 florins), street and water works, hydraulics (250 florins), ornamental drawing (120 florins), descriptive geometry (100 florins), knowledge of articles of merchandise (100 florins). A good technical library under the supervision of a full professor, and with an allowed expenditure of 4,960 florins, exclusive of fees (245 florins in 1891-92; respectively, 5,360 and 420 florins, in 1895), is attached to the Lemberg technical high school.

Five gymnasia, 1 real school, 1 Roman Catholic, and 1 Ruthenian-Catholic seminary in Lemberg (Lwów), complete the educational facilities of the present capital of Austrian Poland. According to the *Jahrbuch des höheren Unterrichtswesens in Oesterreich* of 1893, the status of the Lemberg secondary schools was as follows:

The imperial academic state gymnasium, with the Ruthenian language, dates back to the fourteenth century. It obtained its name "gymnasium academicum" in the first half of the eighteenth century; theological and philosophical courses were given at the school, but after the foundation of the Lemberg University (1784 and again in 1817) were transferred to the latter institution. By imperial order of May 31, 1873, Ruthenian was introduced as the official language. Five hundred and eight pupils were in attendance in 1893 in 8 classes. The second State gymnasium, with 467 pupils, founded in 1818, is German. The Francis Joseph state gymnasium, the fourth and fifth state gymnasia, founded in 1858, 1879, and 1892, with 624, 736, and 573 pupils, respectively, are thoroughly Polish, and show the growth of the Polish population and its educational proclivities.

The imperial state real school of Lemberg, founded in 1857, enlarged in 1872, has 430 pupils.

There is in Lemberg a State teachers' seminary with 150 male candidates and 62 male pupils in its preparatory class, and a similar institution for females with 204 candidates, and 30 pupils in the department for kindergarten education. Both Polish and Ruthenian are official languages.

One industrial school with Polish as the official language, and with the departments of architecture and industrial art, with trade schools in cabinetmaking, turning, artistic embroidery, decorative designing and drawing in an open drawing-room for women, and an industrial workshop help to complete the round of useful studies.

*Secondary schools in Galicia.*—Secondary schools are freely spread over the whole country to serve as feeders for the two Polish universities and the school of technology. Most of them are governmental



schools, and the few which are not, are under the supervision of the provincial school authorities and the minister of public instruction in Vienna, so as to insure the same high standard of scholarship which has to be reached in the imperial or state gymnasia and real gymnasia. The curriculum of all is, *mutatis mutandis*, equal to that of the other schools of equal grade in the monarchy, only all branches are taught in the Polish language by national teachers, thus propagating and increasing a specifically Polish culture, which makes this great province one of the most precious jewels in the crown of Austria-Hungary.

The following secondary schools in Galicia with Polish as the official language<sup>1</sup> may be mentioned:

The state gymnasium at Bochnia, with 365 pupils; founded in 1817. The administration and instruction is conducted by 1 director, 12 professors, and 6 associates (*supplenten*), about the usual number of the teaching force of such schools. All these officers are regular graduates of Austrian universities provided with their special *facultas docendi*.

The state gymnasium at Brzeżany, with 382 pupils; founded in 1805; completed in 1863.

The under gymnasium of Buczacz under the Basilian Brothers; founded in 1754 by the starosta, Count Nicolaus Potocki, with 346 pupils.

The private gymnasium of the Jesuits at Bąkowiec, near Chyrów, originated from the old convict school of the Jesuit Society at Tarnopol. The school, with its 8 classes and 306 pupils, has, under the ministerial decree of December 28, 1891, all the rights and privileges of a state gymnasium.

The Francis Joseph state gymnasium at Drohobycz, founded in 1858 as a communal school, taken under state control in 1874, the community granting it annually 18,000 florins, has 347 pupils.

The state gymnasium at Jaroslau, opened in 1868 as communal school, taken under state control by imperial decree in 1872, has 401 pupils.

The state gymnasium at Jasło, founded in 1868 as communal school, since 1875 administered by the state. The community takes charge of the building, heating material, and service, and pays an annual contribution of 500 florins. It has 496 pupils.

The state gymnasium at Kołomea, founded in 1861 as a communal under gymnasium. Since 1878 it has been a full gymnasium, with obligatory drawing in the lower classes. In 1892 the first parallel class with Ruthenian as official language was opened. It has 569 pupils.

The state gymnasium at Podgórze, opened on September 5, 1892, with 2 classes and 113 pupils.

The state gymnasium at Przemyśl originated in the Jesuit college founded in 1617. After the suppression of the order it received secular

<sup>1</sup> Jahrbuch des höheren Unterrichtswesens in Oesterreich. Bearbeitet von Joh. Neubauer und Dr. Josef Diviš. 6. Jahrgang, 1893. Wien, F. Tempsky.

teachers in 1773. The philosophical institute, opened in 1820, was combined with the gymnasium in 1849. With the scholastic year 1888-89 the first parallel class with Ruthenian was opened by imperial decree of July 29, 1887. There are 564 pupils in the Polish and 218 in the 5 Ruthenian parallel classes; together, 782.

The state gymnasium at Rzeszów, completed in 1858, has 605 pupils.

The Archduchess Elizabeth state gymnasium at Sambor existed as a Jesuit gymnasium from 1680 to the suppression of the order; was supported by the community from 1792 to 1815; since 1815 has been a state gymnasium; has had its complete 8 classes since 1853; 469 pupils.

The state gymnasium at Nowy-Sandec, founded in 1818 with 6 classes, was transferred to the Jesuits in 1839, provided with secular teachers in 1849, completed in 1866. The community pays annually 1,680 florins toward its support. It has 279 pupils.

The state gymnasium at Sanok was opened in 1881 with 2 classes; supported entirely by the community; it has 291 pupils.

The state gymnasium at Stanisław, founded as Jesuit gymnasium in the eighteenth century; it has 627 pupils.

The state gymnasium at Stryj, subventioned by the city with 5,000 florins; it has 342 pupils.

The state gymnasium at Tarnopol, established as a Jesuit gymnasium in 1820; with a philosophical institute in 1821; organized in 1850 as a full gymnasium with secular teachers; has 472 pupils.

The state gymnasium at Tarnów, established in 1784; complete since 1849; has 551 pupils.

The state gymnasium at Wadowice, complete since 1878, with obligatory drawing in the lower classes; has 269 pupils.

The state gymnasium at Złoczów, completed in 1881; subventioned by the city with 4,000 florins and all the necessary material; it has 296 pupils.

Two real schools (*Realschulen*) at Stanisław and Tarnopol, and the teachers' seminaries (normal schools) at Rzeszów (202 candidates), Sambor (Polish and Ruthenian, with 142 candidates), Stanisław (Polish and Ruthenian, with 195 candidates), Tarnopol (Polish and Ruthenian, with 197 candidates), Tarnów (165 candidates), and Przemyśl (with 115 female candidates) contribute to furnish the country with good primary teachers.

Higher female schools have not yet obtained full and due appreciation, yet good private and convent schools contribute largely to a high intellectual and moral education of women in Galicia.

#### EDUCATION IN THE ANCIENT POLISH PROVINCES OF PRUSSIA.

In the official *Jahresberichte über das höhere Schulwesen in Preussen*, by Conrad Rethwisch, Berlin, 1893, no instruction or education in the Polish language is mentioned, at least so far as the secondary schools

in Prussia are concerned. But the solution of the Polish linguistic and educational problem is not yet entirely accomplished. It still exists in three provinces of the Kingdom of Prussia, in the province of Prussia (proper), Posen, and Silesia.

Ever since Adalbert, Bishop of Prague, went to preach the gospel to Prussia, about the year 997, Prussia, as called by his companion Gaudentius, because it was inhabited by the Bor-Russians (Bordering-on-Russia), a fierce, warlike tribe closely related with the Letts and Lithuanians, this country was the Eris apple of the surrounding German and Slavonic powers. King Knut of Denmark and the Polish dukes, the Grand Masters of the Teutonic Order and the Polish kings, the Hohenzollern dukes, and later the Electors stamped their character and nationality upon the country, as St. Adalbert—according to Carlyle—"has stamped his life upon it, in the form of a crucifix." Thus its inhabitants are, according to their descent and language, Lithuanians or Letts, Masurs, Kures, Kassubes, but mostly Poles and Germans, the latter strongly mixed with Swiss and Palatine emigrants and colonists, French Huguenot refugees, so liberally received by the Great Elector, and Salzburg exiles, driven out by their archbishop. The Massurs live in the southern part of the government districts of Gumbinnen, Königsberg, and Marienwerder, and are unmixed Slavs as well as the Kassubes.

But this whole population, so long under the superior, leveling influence of Prussia, has been welded together, with the exception of the two Slavonic constituents, into one pseudo-German element, of course the purely German majority itself excepted. But the province of West Prussia, formed in 1878 for administrative reasons, contains still a Polish population, amounting to one-third of the entire population, among whom the Polish language is still cultivated and has a secondary place beside German in the schools. But a glance at the network of the most excellent German schools of all descriptions proves that this province is in Germanism equal to any other Prussian province beyond the Elbe.

"This acquisition [i. e., the share taken by Prussia in 1772]," says Frederick the Great somewhere in his memoirs, "was one of the most important we could make, because it joined Pommerania to East Prussia (ours for ages past), and, since it rendered us masters of the Weichsel River, we gained the double advantage of being able to defend that Kingdom (Ost-Preussen), and to draw considerable tolls from the Weichsel, as all the trade of Poland goes by that river."

Carlyle puts the adequate question, What became of West Preussen under Friedrich? and Gustav Freytag responds, not an impartial witness toward Poland, but in this case history corroborates his statement:<sup>1</sup>

*Acquisition of Polish Prussia.*—Frederick was the first conqueror who once more pushed forward the German frontier toward the East, reminding the Germans

<sup>1</sup> G. Freytag, *Neue Bilder aus dem Leben des deutschen Volkes*, Leipzig.



again that it was their task to carry law, culture, liberty, and industry into the east of Europe. All Frederick's lands, with the exception only of some Old Saxon territory, had, by force and colonization, been painfully gained from the Slav. At no time since the migrations of the middle ages had this struggle for possession of the wide plains to the east of the Oder ceased. When arms were at rest, politicians carried on the struggle.

*In what state Frederick found the Polish Provinces.*—Some few only of the larger German towns, which were secured by walls, and some protected districts inhabited exclusively by Germans, as the Niederung, near Dantzic, the villages under the mild rule of the Cistercians of Oliva, and the opulent German towns of Catholic Ermeland, were in tolerable circumstances. The other towns lay in ruins, so also most of the hamlets (*Höfe*) of the open country. Bromberg, the city of German colonists (founded by the Teutonic Order, but entirely Polonized), the Prussians found in heaps and ruins. No historian, no document, tells of the destruction and slaughter that had been going on in the whole district of the Netze there during the last ten years before the arrival of the Prussians. \* \* \* The country people hardly knew such a thing as bread; many had never in their lives tasted such a delicacy; few villages possessed an oven. \* \* \*

The peasant noble (unvoting, inferior kind) was hardly different from the common peasant; he himself guided his hook plow (*hacken-pflug*), and clattered with his wooden slippers upon the plankless floor of his hut. It was a desolate land, without discipline, without law, without a master. On 9,000 English square miles lived 500,000 souls, not 55 to the square mile.

Gustav Freytag is doubtless right about the then condition of that section of Poland. Mr. W. A. Day, in his above-mentioned Russian Government in Poland, pages 134–135, corroborates the statement. But Freytag is wrong when he puts all the blame upon the Polish government, administration, and necessary national character. The counter picture of what Germany, and Brandenburg in particular, was after the thirty-years war, and the fact that the Great Elector preceded the Great King in raising her people from absolute brutality, might have enabled the great novelist-historian to seek for the causes of desolation somewhere else.

*Frederick sets to work.*—The very rottenness of the country became an attraction for Frederick; and henceforth West Prussia was, what hitherto Silesia had been, his favorite child, which, with infinite care, like that of an anxious, loving mother, he washed, brushed, new dressed, and forced to go to school and into orderly habits, and kept ever in his eye. The diplomatic squabbles about this "acquisition" were still going on when he had sent a body of his best officials into this waste, howling scene to set about organizing it. The *Landschaften* (counties) were divided into small circles (*Kreise*); \* \* \* new parishes, each with its church and parson, were called into existence as by miracle; a company of 187 schoolmasters, partly selected and trained by the excellent Semler, were sent into the country; multitudes of German mechanics, too, from brick makers up to machine builders. Everywhere there began a digging, a hammering, a building; cities were peopled anew, street after street rose out of the heaps of ruins, new villages of colonists were laid out, new modes of agriculture ordered. The great canal was dug which connects, by the Netze River, the Weichsel with the Oder and the Elbe. \* \* \* And when Goethe, himself now become an old man, finished his *Faust*, the figure of the old King again rose on him and stepped into his poem, and his *Faust* became transformed into an unrelenting, creating, pitilessly exacting master, forcing on his salutiferous drains and fruitful canals through the morasses of the Vistula.



So far Freytag's description of the fact is essentially true and correct. Education, which was raised and increased by degrees from that time on, is materially a Prussian, i. e., a German, creation in those regions.

It was not, therefore, simply as a conqueror that Prussia came. Frederick believed that his "share" was necessary for her security, but it must be humanized and strengthened; its people must be educated—it was but natural with him and his successors that they must be educated in German. In villages the most remote, schools were introduced and churches rebuilt and endowed; Polish-speaking teachers were sent to the western provinces, where they could make no use of the Polish language and would even forget it; German teachers who knew no Polish whatever were sent to the east to teach in German exclusively, which they did frequently not to much advantage. Yet the "noiseless Germanization" of the old Polish provinces ever went on.

Meanwhile the originally Polish population became more conscious of its nationality, owing to its better educational equipment. A Polish nobility of the highest order of education and culture arose to cultivate the treasures of their old civilization. It can be safely stated that there is no Prussian subject of Polish nationality who objects to learning and mastering the German language. Only when there was coercion to unlearn Polish did a strong reaction take place against it from all strata of Polish society. Everybody knows and values German, but wants to be free to speak the language of his fathers at home, in the church, and in the school, at least for religious instruction. Although the point how far to concede the latter privilege is still a matter of controversy, forbearance and toleration is the present principle of the Prussian policy, and in consequence the representatives of the Polish population in Prussia are faithful supporters of the Government, loyal adherents to the monarchy and its enlightened dynasty. In the army, in the civil service, in all professional and practical pursuits, there are thousands of Poles in distinguished, frequently the most elevated, positions. A difference or discrimination exists no longer.

The primary-school controversy, how much Polish shall be taught in the elementary schools of the Polish-Prussian provinces, whether in religion alone, which can be felt and understood by the child only in the mother language, or also in other branches of instruction, has not subsided yet. Some sharp contrasts of opinion are yet existing, but the conciliatory, natural, tolerant opinion prevails, counting among its supporters men like Professor Delbrück, of the University of Berlin, editor of the influential *Preussische Jahrbücher*. Although Polish is still an important element in the eastern social life of Prussia, owing to a highly cultured nobility and an excellently educated "bourgeoisie," still it has no longer a preponderating influence.

But so much may be safely maintained: that the Polish language in Prussia will not die out and its literature will not be forgotten, since

the unique German universities develop it into an integral constituent of their Slavonic departments, and since more and more young men are taking up Slavonic studies in order to investigate, search, and complete the round of the Indo-European languages, literatures, and histories.

*Polish origin of the University of Koenigsberg.*—The University of Koenigsberg, which to-day is so absolutely German that the Polish seminary under H. Pelka and the Lithuanian seminary under M. Lackner are the only traces of its past, is more closely related with the history of Polish culture than is generally assumed. It was established in 1544 as Collegium Albertinum by Albert, Duke of Prussia, first cousin to King Sigismund Augustus, with the object of promoting religious, literary, and scientific culture among the German, Polish, and Lithuanian populations which inhabited the dominions of Prussia. Indeed, the university contributed much to the spread of Scriptural knowledge in Poland. The first Polish gospel and the first Protestant works in that language appeared under the auspices of this institution. More than that, the university obtained its consecration and baptism from Poland.

At a time when the privilege of the Pope, or his worldly representative, the Emperor, seemed indispensable to the foundation of a university, the first rector of Koenigsberg, Sabinus, applied to Cardinal Bembo to obtain, by his instrumentality, from the Pope, a charter for a university established with the avowed purpose of opposing his authority. Of course this request was declined by Bembo, and likewise by the Emperor. But Sigismund Augustus, King of Poland, although a Catholic monarch, granted to the Protestant university of Koenigsberg a charter, *proprio motu datum*, Wilno, March 28, 1561. He expresses by the above-mentioned charter that he was founding by it the said university (*universitatem condidimus et ereximus*), to which he gave equal rights with that of Cracow. This charter for the erection of a Protestant university was—in honor of Polish toleration be it mentioned—countersigned by Padniewski, vice-chancellor of Poland and Roman Catholic bishop of Przemyśl. When the privileges of that university were confirmed by Wladislaw IV, King of Poland, the act of confirmation was likewise countersigned by the vice-chancellor, Gembicki, also a Catholic prelate. The Polish monarch had an opportunity of exercising his supremacy as liege lord of Prussia in a manner beneficial to the privileges of the University of Koenigsberg in 1617. The Duke of Prussia, having appropriated to himself the right of nominating professors, which was vested in the university by its charter, the affair was referred to the King of Poland, whose commissaries decided in favor of the university.

The prime object of the theological faculty of the university was to train ministers fit to expound the word of God to the Polish and Lithuanian populations of Prussia in their national languages. Heretofore a translator was always standing near the pulpit, who translated

to the congregation the German sermon, unintelligible to most of the Poles and Lithuanians. The theological seminary established at the university contained 24 students, 14 of whom were for the Polish and Lithuanian languages. In 1425 a separate seminary was established for the Poles and Lithuanians of Prussia, besides a foundation made by the Princes Radziwill for Protestant scholars from Poland and Lithuania.<sup>1</sup>

*The Lyceum Hosianum; secondary schools in Prussia.*—The Lyceum Hosianum at Braunsberg, so called after the celebrated Cardinal Stanislaus Hosius, which at present is absolutely Germanized, is of thoroughly Polish origin. An adversary of the Reformation, Hosius, as bishop of Warmia, founded in 1568 the Jesuit college at Braunsberg, as a means for the suppression of the reformatory movement in Poland. The school became an episcopal seminary for the training of priests. After its destruction by the French in 1807 it was rebuilt, and by royal decree of May 19, 1818, was raised to a Catholic theological and philosophical faculty, and endowed by the secularized estates of the monastery of Neuzelle, near Frankfort on the Oder. At present, however, not a trace of its Polish origin is left.

The great number of excellent schools in the province shows that the Prussian Government neglects nothing to raise the standard of culture in the two provinces to a height never reached before.

There is a royal academy of fine arts at Koenigsberg, 16 gymnasia, 2 progymnasia, 6 real schools, 2 real progymnasia, 1 higher Bürger-schule (high school), 12 public high schools for girls, 8 middle schools for boys, 8 teachers' seminaries (male), 2 royal and 10 private preparatory schools for the latter, 2 schools of navigation, 2 schools of midwifery, 1 trade and 1 architectural school, the agricultural institute connected with the university, 2 (secondary) agricultural schools, and 7 lower agricultural schools, beside 4 schools for the deaf and dumb and 1 for the blind. Only here and there a little Polish is taught as a facultative branch, but otherwise the Germanization has been absolute and complete.

**Libraries:** Two cities in West Prussia are especially notable for their libraries—Danzig and Elbing.

The city library of Danzig was founded in 1591 by the donation of Giovanni Bonifacio Marchese d'Oria and increased by later purchases, donations, and legacies. It is especially rich in local, Polish, and German history, geography, literature, art history, and political economy. It contains about 70,000 volumes, among which there are 446 incunabula and 1,182 manuscripts. The library is especially rich in Polonica, relating to the history of Poland and her relation with Prussia. The first volume of a catalogue of the library relating to the manuscripts concerning Dantsic was published by A. Bertling, 1892.

The Danzig city archives, besides those of Lübeck, the richest city

<sup>1</sup> Vide Arnold's *Geschichte der Universität Königsberg*.



archives in North Germany, were arranged anew in 1850, by order of the Danzig city magistracy, for the public service and scientific use. They contain four chief departments: (1) The archive library, containing mostly manuscripts and chronicles, but few printed works; (2) the library of maps and plans, containing the oldest maps and views of the city and its territory; (3) the great collection of historical records and documents, most of them of the greatest historical value—the books of the national delegates, sent to diets and other missions, from 1429, the *acta internunciorum* from 1515 on, the records of the Hansa and the Prussian States; (4) the collection of documents, containing more than 50,000 numbers, the oldest from 1253.

The city library of Elbing, founded in 1601, increased in 1710 by manuscripts and incunabula from the Dominican monastery at Elbing after its suppression, contains about 27,000 volumes, 121 incunabula, 205 manuscripts, and 770 maps and engravings. The library is well catalogued.

*The Province of Posen.*—The Grand Duchy or Province of Posen has a population which is mostly Polish by descent and language, especially preponderating in the southeast of the province; but the German element is strongly represented, especially in the cities and towns, and is steadily progressing. Education is almost exclusively in German hands, though Polish is studied almost everywhere in the primary and secondary schools and from the pulpit.

There is no university in this province, owing to the close neighborhood of Königsberg, Berlin, and Breslau, but a network of excellent secondary schools is spread over the country.

There are 14 gymnasia, 2 progymnasia, 4 real schools, 13 middle schools, various high schools for girls, 5 teachers' seminaries (male), 4 royal preparatory schools for the latter, 1 (female) teachers' seminary, 2,187 public primary schools, 3 institutes for the deaf and dumb, 1 for the blind. Nevertheless public education stands lower in Posen than in any other Prussian province, sending the highest percentage of alphabets to the army, 8.55 per cent in 1884–85.

At the head of the Polish Roman Catholic clergy stands the Archbishop of Posen-Gnesen, now himself a Pole, under whom are the metropolitan chapters at Gnesen and Posen, the archpriesthoods, the collegiate abbeys and cloisters.

Among the finest buildings of the city of Posen, dating back to Polish times, are the city hall, built in 1580, Slavonic-Roman style, with a beautiful tower, built in 1730, and a rich collection of books; the palace, decorated with a magnificent frontage, with 24 Corinthian pillars, donated by Count Raczyński; the Dzialinski palace, with a rich collection of Polish documents; and the palace of the archbishop, with a large gallery of precious pictures and works of art, partly referring to Polish history. The city of Posen has 24 Catholic and 3 Protestant churches, among which the cathedral, built in Gothic style in 1775, is



the most significant. It contains valuable fresco paintings, numerous monuments and tombs, and the so-called golden chapel, which Count Raczynski, with some other Polish nobles, built in 1842 in Byzantine style and adorned with many works of art, especially the gilded brass monuments of the first Polish kings, Mieczyslaw and Boleslaw, executed by Rauch, the famous sculptor of the tomb of Queen Louise of Prussia.

The city is amply provided with excellent schools, namely, 1 real gymnasium, the building of which is an architectural ornament of the city; 2 gymnasia, partly with Polish instruction; 1 (female) teachers' seminary, 1 girls' high school, several boys' high schools, and a school of midwifery.

Posen, besides Gnesen, is one of the oldest Polish cities, and is still a center of Polish culture, education, and the seat of the Polish book trade in Prussia. After his conversion to Christianity, King Mieczyslaw founded here a bishopric in 996. By its trade with Germany the city became very flourishing and the seat of a "województwo" (military governorship). The work of Lukaszewicz, *Obraz historyczno-statystyczny miasta Poznania*, Posen, 1838 (German translation in 1881), gives a fair picture of such an old boundary town between the Germanic and Slavonic domain, its culture, struggles, aspirations, influence, life, and thought. No German author has from a German standpoint so finely defined the contrast between Slavonic and Teutonic life as Gustav Freytag, to repeat an earlier statement, has done in his *Credit and Debit*, and especially in his classical historical novels, *Die Ahnen* and *Bilder aus der Deutschen Vergangenheit*.

**Libraries:** The capital of the Grand Duchy of Posen has two important libraries, with a large stock of books and documents relating to Polish history, literature, education, and political conditions.

The family library of the counts of Raczynski was bequeathed as an eternal, particular property to the city of Posen on February 22, 1829, together with the newly built library building and an endowment of 189,500 marks. It contains 50,000 volumes (189 incunabula), 360 manuscripts, and 230 documents. The allowance for yearly expenditures is 4,600 marks. The library is well catalogued in 4 volumes by M. E. Sosnowski and L. Kurtzmann.

Besides the Raczynski library, the royal State archives in Posen have a large stock of Polish historical and court documents; about 3,000 documents from 1153-1793, Acta from 1793 on, grod books from 1386-1793; collections from the western and south Prussian times; also the very important and unique city archives of Posen, Gnesen, and Fraustadt, which do now and will for a long time furnish rich sources for the investigation of Poland and her relations to the surrounding neighbors, as well as for her standard of culture and civilization.

## CHAPTER XVI.

### ART EDUCATION IN THE PUBLIC SCHOOLS.

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Inasmuch as the true industrial education is art education, the progress of the common schools in introducing instruction calculated to cultivate the taste of the pupils for genuine works of art is of great significance. The invention of new machinery is gradually driving out the drudgery of work by hand. More and more persons are laboring with the brain and fewer with the mere hand. With the increase of production by machinery more individuals in the community can be spared for those vocations which add ornament to goods. Fewer persons are needed to gather the raw material, more are needed to manufacture it into articles of luxury and ornament. Those nations whose workmen display the highest order of taste in the finish of their goods hold the markets of the world and increase more rapidly in wealth. Philadelphia, in proportion to its size, has a larger manufacturing population than any other city in the United States. It is interesting to note that by the generous benefaction of Drexel one of the best institutions for education in art has been founded. Dr. James MacAlister, the president of Drexel Institute, read the following paper at the annual meeting of the department of superintendence of the National Educational Association. In the light of the future of art education this address is of great significance:

#### ART EDUCATION IN THE PUBLIC SCHOOLS.

By JAMES MACALISTER, LL. D., *President Drexel Institute of Art, Science, and Industry.*

The social development of the last half century shows a steady growth in the recognition of the public school as one of the most important institutions of modern society. To the thoughtful man the future presents a number of social problems of the gravest import. Individual freedom from class and proscriptive tyranny has, in a broad sense, been secured. Public opinion, the aggregate of the majority of individual opinions, has become the sole basis of social order, and hence the binding force in modern society in what the majority of the people think or believe. We need to bring the full significance of this fact before us, and to consider that under this social dispensation all the baser elements of human nature are given as free play as are the higher elements, and that no man is restricted in his personal liberty

until he encroaches upon the liberties of others, before we can adequately comprehend the supreme importance of public education to the modern state.

John Fiske made a valuable contribution to education, as well as to the doctrine of evolution, when he pointed out the meaning of infancy. In his suggestive treatment of this subject he asks this question:

What is the meaning of the fact that man is born into the world more helpless than any other creature, and needs, for a much longer season than any other living thing, the tender care and wise counsel of his elders? It is one of the most familiar of facts that man, alone among animals, exhibits a capacity for progress. That man is widely different from other animals in the length of his adolescence and the utter helplessness of his babyhood is an equally familiar thing. Now, between these two commonplace facts is there no connection? Is it a mere accident that the creature which is distinguished as progressive should also be distinguished as coming slowly to maturity, or is there a reason lying deep down in the nature of things why this should be so?

He then points out the great advantage that has come to the race through what he calls the period of *mental plasticity*; that is, the period of infancy, youth, and adolescence, forming nearly one-third of a human life, during which the individual is trained for his social duties.

The social condition of man has now reached a high degree of complexity. This social condition can be protected and properly developed only so far as education provides for training the youth of a community for the duties and responsibilities incident thereto. With just as much thoroughness, with just as much care, we need, at the present time, to train our children to all that makes for high and noble living. As the Greeks trained for the conditions existing in the Greek state, as the Romans trained for the conditions existing in the Roman state, so also we must recognize the supreme importance of training in all that makes for the highest intellectual culture and refinement in human life. With the absence of the militant power in our American state we base our institutions entirely upon the dominance of the moral and spiritual faculties among men. Indeed, our social and political organization rests wholly upon the belief that the majority of men prefer good to evil, virtue to vice, and if we take a broad view of the active forces in the social organism, we see on every hand virtue grappling with vice, justice struggling with injustice; and in these struggles we see that success can be hoped for only as all the higher faculties of man are brought into play upon the side of justice and of virtue. To state the problem in a few words, our duty is to so organize the forces that make for right living that they shall always be the dominant power in the social organism; and it is only when we come to recognize this condition as fundamental to all growth in human well-being that we can get a proper comprehension of what is involved in public education at the present time.

When the education of the people is looked at from this point of view it is seen that its greatest power must be exerted where the

dangers to the social organism are greatest—that is, among the poorest classes. There is more need of the refining influences of the best education among the debased and neglected elements of population in our large cities than among the children of the rich and prosperous; and hence the movement of the last few years to carry the most improved forms of our education among the lowest classes is an indication of the growth of public sentiment in the right direction, and is a feeling that will undoubtedly grow in strength as social problems are more carefully studied.

We have seen in many parts of the country the growth of a very praiseworthy sentiment in favor of raising the national flag over our schoolhouses. The spirit that prompted this movement was a patriotic one, and marks the growth of a national feeling stronger than that of local interests. To the educator it should stand for more than a mere loyal impulse. The flag should be made to represent more than the sovereign power and unity of the union. Consider for a moment that in our large cities the great mass of the children see little or nothing of the government or the forces that bind society together except as presented by the policeman. What better instrumentality is there for inculcating in the minds of the young a respect for government and law than the schoolhouse? If we can lead the pupils to understand that the schoolhouse is provided by the State, is provided for all without distinction of race, condition, or creed; if we can make the schoolhouse a place of delight, and if we can secure within it the right sort of instruction, the training that shall tend to develop the noblest qualities of mind and heart, we shall then be fostering not simply a love of country for its past history and the heroic deeds of our ancestors, but we shall be cultivating a love of country for what the country is doing for the children themselves in preparing them for the highest and best purposes in life. Then will the flag mean something personal to every child. Then will the Government be to him not simply an abstraction, but he will come to regard it as his own great helper and sustainer. I welcome, therefore, this nationalization of the school as one of the most important of the educational movements of our time.

If, however, we make the school the symbol of the State to children, we must have taught in it all that the child requires to enable him to become a virtuous and a useful citizen. I do not think there can be any gainsaying this proposition. Indeed, it follows logically from the very establishment of a public school; and in our day, when such important responsibilities are attached to citizenship, the public school and its instrumentalities must be measured solely by its capacity to realize its complete function.

Nearly all the States have limited the instruction that shall be given in public schools, and some confine it within very narrow bounds. But we are gradually outgrowing the restricted ideas of education of fifty years ago, and our more intelligent communities are already anticipating



legislative action and are putting into their schools new subjects for study, new exercises which have for their object the development of the higher powers of the pupils and bringing them into the closest possible relations to the social needs of the future. Look for a moment at some of the movements that are going forward at the present time for enlarging the scope of public education. First we have the kindergarten, the recognition of the child in education, one of the most beneficent reforms that have ever come into the schools. Then we have physical training, the recognition of the fact that the citizen to have a healthy mind must also have a healthy body. Then we have the study of elementary science, which has for its object the bringing of the individual into the closest relations with his physical environment, that he may be able to enrich the world by his conquests over nature; that he may, to use the words of Bacon, become the "minister and interpreter of nature." Then we have industrial or manual training, which recognizes that labor is one of the conditions of man's existence in the world, and that it is through understanding labor and putting thought into labor that man is brought more completely into sympathy with his fellows. Then we have the study of history, not simply as the record of man's military conquests, but rather as showing the steady development of the idea of brotherhood among men. And then, in addition to these, we have the instruction in art, in some respects the most important of all, because its influence tends to enrich the mind as a whole through the development and training of its highest faculties.

Now, cavil as we may against these new studies; argue, as many persons do, upon the limitations which are, or ought to be, imposed upon the State, all these features must come into the public schools, and in no niggardly way. They must come in on the broadest possible basis, or there is danger that the present tendencies of social progress will miscarry. That their introduction into the schools will revolutionize much of our existing education can not be denied; but that need not give cause for serious regret. We may lay it down as a fundamental and incontestable proposition that existing social conditions demand these two things: First, the highest order of citizenship possible; and second, that public education must prepare for such citizenship at whatever cost.

I have prefaced these remarks because in discussing "Art education in the public schools" it has seemed desirable for the right understanding of the subject that it should be considered, not simply as a specialty in education, but rather in the larger aspect of one of the branches of general education that has become a necessity of our time. It is only by regarding the subject in its broadest relations that we can rightly consider how it should be treated in the schools. It will be understood that, in so far as the elementary schools are concerned, I am using the term "art education" as limited to drawing and color.

Of the new studies referred to, art education is the one least understood, and yet it is the one that in many respects is the most important. Next to language there is no branch whose scope and purpose is so far reaching or that bears more directly upon all that ministers to the best interests of the individual and of society. I am aware that many will regard this as far too inclusive a statement, and yet the history of civilization shows that the arts which deal with form and color have been at once of the highest value to man's utilitarian necessities and to those desires which nothing but the beautiful in nature and in art can satisfy. As a people, I think it will be admitted that we are deficient in art culture, and I do not think it will be denied that in consequence we are losing no small part of our intellectual heritage. This will not always be so. The indications are many that art is to have a new development in America, and on a new basis—the basis of humanity. The putting of industrial training into the schools is a great step in this direction, and will surely give a higher idea and a nobler purpose to the labor of common life. The putting of art education into the schools, side by side with industrial training, will not only give dignity to labor but will also permit the human feeling born of labor to find fit and adequate expression.

The use of the term "art education" in connection with the public education has long been a great bugbear to many so-called practical people. To such persons the word art in connection with the public schools savors of something unpractical, something that is for special pupils, something for the benefit of the few rather than for the many; and yet a right understanding of the relations of art to daily life shows this to be an entire misconception of the subject. It is a fact apparent to every observing person that the social life of our people is lamentably wanting in an appreciation of the beautiful in nature as the highest truth of nature, and of the beautiful in human life and work as the highest truth of character. This is apparent in the homes, in the amusements, and in the social customs of our people generally. In the scramble for wealth that is going on, people are losing sight of the fundamental ethical principles that hold society together, and are making a pretense of living. Now, art education, which is the study of beauty as the highest truth in nature and in human life, can be directed powerfully against this social demoralization, and hence we should be prepared to advocate art education in the schools as a potent agency in the uplifting and improvement of the community.

Goethe says:

The beautiful is greater than the good, for it includes the good and adds something to it. It is the good made perfect and fitted with all the collateral perfections which make it a perfect thing.

This is but a restatement of the old Platonic doctrine which still finds recognition in the most advanced theories of ethics and education. While we are extending our system of education on the utilitarian side,

we must not forget that the right enjoyment of life—that is, the exercise of the higher faculties—is as much a function of living as earning one's daily bread; and for our education to be useful, in the true sense of the term, we can not ignore the training of the æsthetic faculties as much for moral as for practical ends.

I have felt constrained to emphasize this aspect of the subject as of supreme importance at the present time, because in the general introduction of form study and drawing into the schools there seems to prevail an idea that their chief value consists in subserving industrial ends, or as aids to other branches of instruction. The great value of form study and drawing in industry, as well as their great use in educational training, can hardly be overestimated; but form study and drawing as the basis of art education need to be considered in much broader relations than their application in these directions.

Now, art in form and color is not an abstraction. It is something very tangible. It is man's creative work with material things; work in which he expresses himself, his power, his knowledge, his feelings, his ideas, for the use and the enjoyment of others. With every child there is born some degree of this power of individual creation, and closely allied to it is another and complementary power, that of curiosity or observation; and it should be a principle in all general education to lay hold of these two great instinctive powers and give them free play in the training of every child. True art education distinctly recognizes these two mental powers as its starting point, and seeks to stimulate and direct them so that they shall act and react on each other, and result in the creation of beautiful things, not so much for the gratification of selfish or individual desires as for giving joy to others. The method of training for this end has a dual aspect. On the one side the child is led, through the exercise of his observing powers, to discover that beauty is the highest truth in all material things, in fact, that there can be no beauty devoid of truth; and, on the other side, he is trained to express his observation of the beautiful in creations that shall minister to the needs and pleasure of man. It has been truly said that sharing in some common enjoyment begets a more friendly feeling toward others than sharing in the same kind of knowledge.

Not until art education is viewed in these broader aspects can the subject take its rightful place in public education. For not until the psychological conditions for the training of the child are comprehended can a method of instruction in art suitable to children be devised, and not until its applications in social life are comprehended can the object of art in education be understood.

It is not necessary to dwell upon the fact that this view of art education does not present the subject as in any way antagonistic to its applications to industry, or to other branches of education. In fact, the more the subject is studied from this larger point of view the more will



it be seen that its practical applications, both in industrial training and in general educational training, are greatly increased, because there is brought to its application in these directions the creative power of the pupils, enriched by the study of the beautiful, which is the life-giving principle in all industrial work, and the most subtle and refining force in all intellectual development and training.

With these points in mind, and in view of the wide introduction of drawing into the schools, a pertinent question arises here. Is the study coming into public education on the basis of art, or is it coming in on the basis of utility? If we look at the history of the movement for introducing drawing into the schools, which began about twenty years ago, we shall see that it started upon a purely utilitarian or industrial basis. The movement, in its inception, was but a reflection—in many respects a copy—of the movement which was initiated about a score of years earlier in England, and which has been promoted there almost solely for the benefit of the manufacturing interests of Great Britain. As the movement has developed in this country, however, it is to be observed that it has been steadily widening in character under the influences of educational thought and discussion. Experience has long made it apparent that drawing could not be maintained in the schools as a general study simply on the basis of its technical applications in industry. Consequently, the last ten years have shown important modifications of the instruction in the direction of bringing it into harmony with psychological principles. It was an important step in this direction when form study, or the study of objects, was made the starting point in the instruction. Then drawing took its place as one of the means of expressing ideas of form, and in many of our principal cities the method of instruction has been radically changed so as to make the study of form in models and objects the fundamental feature of the work. Under this arrangement the various kinds of drawing, such as free-hand drawing, mechanical drawing, perspective drawing, decorative drawing, are of secondary consideration, and are governed entirely by what the children have studied and by the ideas they have to express resulting therefrom.

That this change is in the right direction will not be questioned by anyone acquainted with the subject; but it will be a serious mistake to say that, because the method of teaching drawing has been changed so as to make it the expression of ideas derived from the study of objects, the problem of art education in the schools has been solved. In fact, it may be said that with this change of method the real problem confronts us from a new and broader aspect than when we were dealing with the subject simply from the standpoint of drawing. Having reached the stage where drawing is regarded as but a means for the expression of form ideas derived from the study of objects, the vital point in the instruction now turns upon this question: What kind of objects shall we give the children to study for the development



of the ideas to be expressed? It is not infrequently claimed that the interest of the child should be the guiding consideration here. That we should have regard for what shall attract and hold the attention of the pupil is not to be questioned; but it would be a great mistake to assume that this should be the only consideration.

If the love of the beautiful and the creation of the beautiful is the aim of the instruction, then it would seem that the objects given the pupils to study should be such as clearly present the characteristics of beauty. Now, some of the objects that most interest a child may be such as possess no distinctive features of beauty—may be such as appeal to his selfish instincts or feelings. I am sure we shall all agree that such objects should not be chosen. But it is said that leaves, plants, flowers, fruit interest children, and as beauty is found in the study of nature, natural forms should be given as the basis of the instruction. No one will dispute that in this art training children should be given every possible opportunity to study nature, but in the choice of natural forms great care should be exercised in selecting only such as present, distinctly, beauty of form. It should also be borne in mind that the study of nature for the purposes of art is a widely different thing from the study of nature for the purposes of science. In the scientific study of nature she is interrogated for her facts, and these facts may be found—indeed, often are found—in objects devoid of beauty. The facts, however, are none the less interesting from the scientific point of view. The scientific study of nature, therefore, is purely objective, and takes little or no account of the æsthetic elements which are involved in the observation of things from the standpoint of art.

In the artistic study of nature, however, the beautiful is the end sought; and the appreciation of the highest beauty in nature is realized only when it is perceived that the various objects in nature are fashioned upon certain type forms which express unity and purpose as the highest truths in nature, truths that transcend all material manifestations and witness the supreme, eternal power that lies back of, and gives life to, nature. The natural objects are very few that express this truth, this beauty of nature, in all their details. They become beautiful only as they are seen in their typical relations. It is one of the functions of art to present the objects of nature, not in their accidental, but in their typical relations; in other words, to interpret nature in her highest aspects, not simply to imitate her in her details. Hence the art study of nature becomes largely subjective, and is very different from the objective study for the purposes of science.

If this principle be conceded, the question arises, what are the typical forms that the study of nature for art purposes reveals as the supreme content of nature? They are very few, and they are very simple forms—namely, the sphere, the cube, the cylinder, the ellipsoid, the ovoid, the prism, the cone, and the pyramid. The wonderful

variety of forms which are observed in nature are but modifications of, or are derived from, these typical forms. These types, therefore, should be regarded as truths of form in nature just as distinctly as gravity is regarded as a truth of power in nature.

Now, if it be one of the functions of art to interpret beauty of form in nature, this beauty will be perceived in its highest aspects only as it is seen to be related to the highest truths of form in nature. Hence we are brought to the conclusion that as the typical forms referred to are the abstract embodiment of the highest truths of form in nature, they should be used in our elementary instruction as the best means of leading the children to discover and to realize the highest forms of beauty in the world of nature.

But the study of beauty in nature is only one phase of art education. The study of the beautiful in the creative works of man is quite as important a feature. The study of beauty of form in man's art work reveals the fact that it also is based upon the same typical forms that are found to be the embodiment of the highest beauty of form in nature, and it is the manner in which man has utilized these types with his creative imagination in the production of works for use and enjoyment that gives to his art works their highest character and significance. Thus we are brought to the final conclusion that for art training, which is to include the study of the beautiful in nature and the beautiful in art, we must adopt the type forms of the sphere, the cube, the cylinder, the ellipsoid, the ovoid, the prism, the cone, the pyramid, as the abstract representatives of all beauty, whether in nature or in art, growing out of the truths of form. The eternal power that speaks through nature's works invests these forms with life and gives to them their highest beauty. In art, man's imagination invests these forms with humanity, which is the very culmination of beauty in art. Beauty in nature and beauty in art are, therefore, in their ultimate analysis one, and rest upon the same unchanging truths of form.

If I rightly apprehend the instruction in form study and drawing that is now finding its way into the schools, it is based upon the distinct recognition of these type forms as the fundamental verities for the training of children to perceive beauty of form in nature and in art; and it is the aim of the instruction so to connect the study of these typical forms, with carefully selected natural forms and fine examples of art forms, that the children may be brought through the legitimate and happy exercise of their observing and creative powers under the influence of the beautiful as the highest truth of nature and of art. This is not the occasion for the presentation of the details involved in carrying out this important work. This task may be left to the many able directors of drawing, who, in several of our leading cities, are endeavoring to give to form study and drawing the broad character here indicated, and who are laboring against great obstacles arising from the general misconception of the subject which exists in the public mind

and in the minds of some who are directing the schools. It seems the proper place, however, for the consideration of a few points whereby the instruction in the schools may be made more efficient.

To this end one fact must be distinctly recognized as fundamental to any substantial and permanent success—that the instruction in the grades below the high school must be given by the regular class teachers. This is so obvious a fact in efficient school management as to need no argument. Following from this, however, are three very important points which I will venture to state:

First. A course of study should be prepared in which the orderly development of the subject through all the grades should be clearly presented. But few of the regular teachers have had any training in art worthy of the name. They need, therefore, to have it so presented that they may be able not only to become acquainted with the features to be taught in their respective grades, but also to see the unfolding of the subject through all the grades. Not until the class teachers are able to take this comprehensive view of the work, not until they see that the study must be recognized as an organic feature in the general course, can they be expected to take an interest in it.

Second. The instruction in this subject in the schools should be under the direction of special directors of art education. These directors should be broadly educated persons. It is not enough that they have received training in technical art work. They should also be familiar with educational methods; with the general school conditions that surround the teaching of art in the public schools; and, above all, they should be able to interpret the work in its principles and methods to the class teachers, as well as to criticise and supervise it.

Third. The schools need to be supplied with more and better objects for the children to study. The models of the type forms that are now being so generally introduced should be supplemented with casts of natural forms, artistically treated, so that the pupils in their individual study of natural forms may see proper specimens of the art rendering of nature, and also with reproductions of historical ornament, both in relief and in color, in order to afford opportunity for studying good examples of art work applied to the things of common life. In addition to these there should also be provided reproductions of choice vase forms from classic, renaissance, and oriental art. Man's realization of pure beauty of form and color has found one of its most pleasing modes of expression in fictile art, and as these vase forms can be shown to be developments under the influence of the feeling for beauty from the type forms we have been considering, and as they are full of historic associations, they will greatly interest the pupils, and can, therefore, be studied with much greater profit for purposes of object drawing than the miscellaneous objects, possessing no well-defined elements of beauty, that are too frequently placed before them.

With well-considered courses of instruction in art education, with



the schools supplied with suitable materials and objects of study, with proper directors in charge of the work, we should see, I believe, a real art development in this country unexampled in the world's history.

Reference has already been made to the want of art culture among our people. This is one of the noticeable facts connected with our social life, and yet the student of history sees that man's creations in art are among his highest achievements, and that they are identified with his highest moral and spiritual development. In the perspective of history it is the art creations of Athens and Rome and Florence and Venice, enshrining as they do some of the loftiest conceptions of the human mind, that make these cities immortal in the memory of man. As a people we are ignorant of the uplifting and ennobling influence of art; and yet we have in our public school system the grandest opportunity that was ever given to carry a love for the beautiful into every home, to make it the possession of every man and woman in the land. But we may look into the future with hope. With the growth of our national power and the development of our material resources, we are broadening our education, and thereby opening the way for a better, a nobler, a happier existence for the people. We are putting into the schools those studies and methods that will powerfully help in transforming the conditions upon which the progress, the order, and the stability of the State depend. The kindergarten recognizes the humanity of the child. The study of science recognizes the world of nature as a Divine storehouse, filled with exhaustless treasures for ministering to the wants of man. The industrial training recognizes labor as fundamental alike to the freedom and independence of the individual, and the power and prosperity of the nation. Art education recognizes the beautiful as not only the supreme truth in the material world, but as a part of the supreme truth in the moral world, and that so far as it enters into the human life it is a Divine influence that purifies the hearts and souls of men.

The love of the beautiful, therefore, should be one of the finest results of our public education, and when art instruction shall be so incorporated into the schools that its rich, benign influence shall permeate the life of the whole people, we may then write over the door of every American schoolhouse these inspiring words of Schiller:

Create the beautiful, and seeds are sown  
For God-like flowers to man as yet unknown.





## CHAPTER XVII.

### FACILITIES FOR THE UNIVERSITY EDUCATION OF WOMEN IN ENGLAND.

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From notes, by MARTHA FOOTE CROW, Ph. D., *Assistant Professor of English Literature in the University of Chicago.*

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#### WOMEN AT THE UNIVERSITY AT OXFORD.

##### I. INTRODUCTION.

It is not the intention to give here a full account of the university system. Many books have been written on this subject, treating of its historical and present features, and showing how the existing very complicated mass of regulations and arrangements has been gradually formed in the devious windings of the centuries. Even if an attempt should be made to display the intricacies of the system, a dismal failure would probably be the result—a failure to which less discredit would be attached if it were revealed that it is said at Oxford that no one dares pretend to understand the Oxford University system. To one coming from a land where in the fresh light of to-day everything is being made at first hand and where what is thought to be the very latest has a greater value than any old thing can possibly have, it seems strange to find the meaning of an odd custom or an unusual differentiation of subject in the schemes of study or a peculiar title for a department of work accounted for on the ground that it is thought to have its origin in monastic customs in the early days, or, it was so differentiated five hundred years ago, or, the schoolmen thought they got this queerness from Aristotle, and we do not like to change the word. With the distinct understanding that no attempt will be here made to give a full view of these bewildering details that have grown up through centuries of historic tradition, and have been modified in a hundred minute ways by the varying circumstances and needs of the different eras through which the institution has lived, and that it shall be considered a quite sufficient answer to any curious question to say, it is so because it always has been so, an answer that always pacifies the eloquence of flippant objectors to the existing state of things in classic English circles, a brief account of the main features only will be given; the sole object being kept in view that whatever may be useful to

women coming from the United States for purposes of study shall if possible be explained with sufficient fullness to prevent misunderstanding.

It is only a few years since women began to study at Oxford, and the movement was to some extent preceded by the establishment of "local examinations," held at different centers throughout the country. These were started first for boys, then girls were admitted to them; then a higher examination for women over 18 years of age was started. These examinations are conducted by a special board known as the delegacy for local examinations, and so the work at Oxford has developed and the regular university examinations have been opened to women. Everything connected with this part of the work, i. e., the examination of Oxford female students, whether by the degree examinations of the university or by the special examinations for women, has been in the hands of this delegacy. The opening out of the university examinations has always taken place in the form of permissions to the delegacy to use the university examinations in their examinations of women. Of course this is a mere form of words, but it means that the business of everything that concerns women's examinations is managed by this delegacy.

The other body that is concerned with the women students is the Oxford Association for the Education of Women (p. 803). This association arranges for the teaching of the women students, and by appointing on its council representatives from the women's colleges really confers a sort of informal license on these colleges.

Residence is provided for the students in three special halls, i. e., Somerville College, Lady Margaret Hall, and St. Hugh's Hall, and one under separate supervision.

## II. UNIVERSITY AND COLLEGE.

The word "university," as used in England, may have any one of several meanings. It may mean the whole body of instructors and students with all the institutions, by means of which they carry on the collective system of their work. But it may also mean the "body corporate" that, by its functions and its delegated committees, exercises jurisdiction over the whole, appoints professors and readers, gives degrees and sends up two members to the House of Commons.

The university has 11,000 members, 8,000 graduates and 3,000 undergraduates, the latter being, of course, in residence in the different colleges, as well as a small number of the former.

Not all graduates are members; only such as retain this position by the payment of certain yearly dues. And this is an important matter, as will be seen. The government of the university is vested in three bodies, the convocation, which consists of all members of the university who have taken the degree of master of arts or of doctor of medicine, civil law, or divinity, resident or nonresident; the congregation and

the hebdomadal council. All legislation is initiated by the latter, adopted, rejected, or amended in the congregation, rejected or adopted (but not amended) in the convocation. The convocation also confers honorary degrees and also degrees granted by decree or diploma, and transacts much other important business.

This plan attaches the graduates, wherever they may be scattered throughout the Kingdom and the world, very closely to the university. They have a vote and an influence and a share in its government.

A college is a corporate body quite distinct from but forming a part of the university itself, using the word in a restricted sense. The separate colleges are more or less subject to the laws and regulations made by the university, and they are intimately associated with the university. The great majority of the members of the university belong to the colleges, and all who belong to the various colleges at the same time are members of the university. There are two ways by which a man becomes a student-member of the university. He approaches this position through one of the colleges, whose duty it is to ascertain his fitness for admission to the university, or he may become a noncollegiate or unattached student, not belonging to any college or hall, and in this case placed under the care of the delegacy for noncollegiate students. To the separate colleges also, in the main, belong the scholarships and exhibitions which are offered to those who begin a university course.

These scholarships are very numerous and of great value. Many of them have been handed down from centuries ago. The pages that describe them and the conditions of admission to them in books of information for undergraduates take up a large part of the space. It is one of the most interesting features of the English university system, a feature that in the opinion of many ought to be copied in the young institutions of the New World. This element softens to some extent the feeling one must have when one realizes the enormous expense of the life of the student under present university conditions.

Every college has its own regulations for the admission of candidates, but there is a certain set of regulations common to all. The university makes the passing of certain examinations one of the conditions of the attainment of the B. A. degree, but the colleges may arrange for special ways of preparing for these examinations. The university imposes certain limits of time within which these examinations must be passed, but the separate colleges may make special laws also if they choose in regard to the time that shall be spent and the methods that shall be employed in preparing for the examinations. Some colleges will not accept as a candidate for admission anyone who does not intend to read for honors. It is not impossible also for persons who do not intend to proceed to the bachelor of arts degree to enter the university with a view to some special study. In such a case as this the entrance examination may be excused, provided sufficient evidence is given of the ability to prosecute those studies with advantage.



There are 21 colleges and each one is housed in a noble set of buildings, arranged about a quadrangle or charming lawn and garden placed in the center. There is always a beautiful chapel, filled with associations of the olden time, and the hall in which the students dine is usually of lofty proportions, and upon its walls are hung portraits of the founders and benefactors of the college. The hall is also used as a lecture room, and the long oak dining tables are converted for the time being into writing desks where the undergraduates sit and take notes of the lecture as it is pronounced from the lecture stand placed for the time being on the "high." The "high" is a raised platform at the upper end of the hall, upon which a table is placed for the use of the fellows at dinner. In every college there are a certain number of fellowships which are permanent, and which are occupied by men who either employ themselves in research study or instruct as tutors or lecturers; and in order that the institution shall be a college rather than simply a hall there must be attached to it a number of such instructors and lecturers, who act as advisers to undergraduates in regard to the lectures that they shall hear and the books that they shall read and who take charge of their written work, to which a great deal of importance is attached. There are other differences, but this seems to be the main distinction between a college and a hall; that a hall is a home for a certain number of students, but does not necessarily include a body of fellows and instructors.

The Women's Colleges at Oxford have no real splendor of building or tradition. They are but new institutions and come rather under the heading of halls, for they are mainly meant as places of residence. Properly, however, Somerville is a college, and Lady Margaret's and St. Hugh's are halls. These will be described in their proper place later on.

### III. THE ASSOCIATION FOR THE EDUCATION OF WOMEN.

The general arrangement of all matters in connection with the education of women in Oxford has been from the first under the care of one general association, now known as the Association for the Education of Women in Oxford. The first scheme for lectures and classes for women in Oxford was organized as early as 1865. These lectures were continued for some years. In 1873 another scheme of the kind was set on foot by a committee of ladies, Mrs. Max Müller being the treasurer, Mrs. Humphrey Ward and Mrs. Creighton, followed by Mrs. T. H. Green, the secretaries. Lectures were given by Professor Stubbs, now Bishop of Oxford, by Mrs. Fawcett, and by several Oxford tutors and lecturers, and classes were held for languages and mathematics.

The association, as it now exists, was founded in June, 1878. A committee was formed and the necessary funds were subscribed. The association was thus enabled to offer at once two scholarships.

In 1880 one college lecture was attended; at the present time students

are admitted, under certain regulations, to lectures in almost every college in Oxford.

In 1893 the work of the committee was readjusted, the name Council adopted, and a standing committee appointed termed the "Educational committee," consisting of the honorable secretary and treasurer of the association, and not less than three of its tutors or teachers, and the principals of the halls. In the same year the university for the first time gave official recognition to the association by the appointment of the dean of Christ Church to sit on its council as the representative of the hebdomadal council. The vice-chancellor also lent a room in the Clerenden Building for use as an office.

In the year 1884 the first university examinations were opened to women. These were honor moderations and the final schools of mathematics, science, and modern history. In 1886 responsions were opened, in 1890 the honor school of jurisprudence and the final examination for B. music, in 1893 the honor schools of theology and of oriental studies and the examination for D. music, and in 1894 the remaining examinations for the degree of B. A.

Thanks to the exertions of the association, every university examination for the degree of B. A. (pass or honor) is open to women, and almost every college admits them to lectures. It only remains for the university to grant the degree.

The number of association students that have attended lectures in Oxford is several hundred. A large number of these have obtained honors in the examinations, 51 having obtained a first class and 86 a record.

The association does not undertake to house students, halls being founded for the purpose. At present these are three in number, Somerville College, Lady Margaret Hall, and St. Hugh's Hall. The association has formulated conditions under which it will acknowledge new halls.

The association consists of ordinary members, honorary members, and student members.

All women who desire to attend lectures provided by the association, with a view to a definite course of study, must enter their names on the association register. Registered students pay 5s. per annum. After three such annual payments, all students who have obtained a complete certificate in the second public examination (pass or honors) of the university, or in the second examination for women (honors) of the delegates of local examinations, will be permanently registered as student members of the association with the right to vote at meetings.

Registered students must reside in one of the halls represented on the council, or with their parents or guardians, or in other places approved by the council. Students who are not in a hall are called home students and are under the care of a special subcommittee and of

a principal. Those who are not living with parents or guardians can be received into private family at a charge of from £1 5s. to £2 12s. 6d. a week. The cost of lodgings in Oxford is from 10s. a week upward; board may be reckoned at from 12s. a week. Students can also be received at St. Hilda's, Cowley House, and St. Kentigern's Hostel, The Crescent. The principal of the home students is Mrs. Johnson, who was for many years honorary secretary of the association. Miss Thorold Rogers, one of the tutors of Somerville, has now taken her place as honorary secretary.

The association procures permission to attend lectures which have not hitherto been open to women. As an extremely influential body, it is able to procure many advantages for its members which they could not otherwise obtain. It is hoped that eventually the association may be recognized as a sort of woman's board of the university. At present the formal recognition it receives is very slight, viz:

- (1) The appointment of one member of the hebdomadal council or the council of the association, and one on the council of Somerville College.
- (2) The privilege of using a room in a university building as the office of the association.

Informally, however, its influence is of great importance, since it includes among its honorary members some of the most influential members of the university, e. g., heads of houses and professors, and this is sufficient to insure its members the continuance of past favors, which before too long, it is hoped, will be transmuted into rights and privileges.

It would be quite possible for a woman to reside in Oxford for the purpose of study quite independent of the association. She might attend the university lectures which are open to the public, and in case she obtained the private permission of professors or lecturers to attend their more public courses of lectures, she might do so; but it would be better in all cases to be connected with the association, in order that the interests of the women students may be understood, and that no mistakes and misunderstandings may occur. It must be noted that the lectures are opened to association students, not to women in general; and when every facility is given by the association arrangements, and when the association is evidently in the hands of those who understand the situation and are applying the best judgment and the wisest policy to the present phase of development, women would do their own cause injury by attempting to work outside. In fact, it is very doubtful whether any such attempt would succeed.

Besides procuring its members admission to university and college lectures, the association provides certain courses itself, particularly in such subjects as modern languages, to which the university has only just begun to turn its attention.

Each course of association lectures is followed by a terminal examination, which students must attend unless specially exempted. This

examination does not count toward the final test, but is simply designed to gauge the progress of students. A student who was not employing her time profitably might be asked to withdraw.

The very great usefulness of such an association as this is evident, especially in this early stage when the university has not as yet in any way formally acknowledged the existence of the Women's College. It fuses into one the interests of all the women in the different halls and all others living in Oxford or elsewhere who are studying under the direction of Oxford instructors. It makes a point of comparison and a court of appeal. It brings the two bodies of instructors and instructed into proper touch without friction. It acts as a friendly go-between for the by no means won university and the women who are just outside the sacred inclosure. It sees that instruction is provided in every department in which women desire it. It provides the terminal examinations and sees that no one escapes this check upon the casual students. In fine, its object is to oil the wheels everywhere, and see that no loophole is left for the entrance of any objection.

All communications with regard to the association should be addressed to the honorable secretary, Miss Rogers, Association for the Education of Women, Clarendon Building, Broad street, Oxford.

#### IV. EXAMINATIONS.

It will be simplest here to state the examinations to be passed and the conditions to be observed by a man who wishes to take his degree at Oxford, and then to point out the slight points of difference in the regulations for women. All examinations that lead to a degree in arts (which at Oxford include law, theology, and science) are open to women. The medical examinations and schools, i. e., the examinations and schools of the medical department, are closed to them. We are therefore concerned here only with the various courses that lead to the degree of B. A., for the M. A. degree is not given for examination, but for a certain standing at the university.

The general regulation for the B. A. degree at Oxford is the following:

Any scholar in the faculty of arts may supplicate for the degree of bachelor in that faculty so soon as he shall have kept statutable residence and employed himself in the study of arts and in hearing lectures for twelve terms, and shall have passed three examinations, namely, responsions and the first and second public examinations, at the several times and subject to the conditions hereinafter set forth:

A responsion is the first of three examinations, and is really preliminary and may be passed before coming up. It is held four times in the year, three times in term, i. e., in March, June, and December, to enable intending students to pass before they enter on their university studies. A fee of £2 2s. is charged, with 10s. 6d. for an additional subject.

The examination is held in the New Schools, in High street, and usually occupies three days.



The subjects of examination are the following:

1. Arithmetic.
2. Either the elements of algebra (to simple equations with one or two unknown quantities) or the elements of geometry (Euclid, Books I and II).
3. Greek and Latin grammar.
4. Translation from English into Latin prose.
5. One Greek and one Latin book. The following portions of the undermentioned authors will be accepted:

Demosthenes: (1) *Philippics* and *Olynthiacs*, or (2) *De Corona*.

Euripides, any two of the following plays: *Hecuba*, *Medea*, *Alcestis*, *Bacchæ*.

Homer: (1) *Iliad*, 1-5 or 2-6; or (2) *Odyssey*, 7-11 or 8-12.

Plato: *Apology* and *Crito*.

Sophocles: *Antigone* and *Ajax*.

Xenophon: *Anabasis*, 1-4 or 2-5.

Cæsar: *De Bello Gallico*, 1-4.

Cicero: (1) *Philippics* 1, 2; or (2) *In Catilinam* 1-4, and *In Verrem Actio I*; or (3) *pro Murena* and *pro Lege Manilia*; or (4) *de Senectute* and *de Amicitia*.

Horace: (1) *Odes* 1-4; or (2) *Satires*; or (3) *Epistles*.

Livy: Books 21 and 22.

Virgil: (1) the *Bucolics*, with books 1-3 of the *Æneid*; or (2) the *Georgics*; or (3) the *Æneid*, books 1-5 or 2-6.

If any candidate desires to offer books or authors not contained in the above list, he is requested to give notice of his desire to do so at least four weeks before the day fixed for the commencement of the examination.

There are some special regulations for natives of India who may substitute Sanscrit or Arabic for Greek or Latin.

The following are typical examination papers in responsions:

#### ARITHMETIC.

Time allowed, three hours.

[The full working must be shown in all cases.]

1. What multiple is 8 tons 13 hundredweight 1 quarter 1 pound 8 ounces of 1 hundredweight 2 quarters 22 pounds 4 ounces?
2. Divide £9 17s. 8½d. between two persons so that one may have four times as much as the other.
3. Reduce to their simplest form:

$$(1) \frac{18577}{20000}; (2) \frac{5}{11} + \frac{11}{15} + \frac{14}{33} + \frac{3}{55}; (3) \frac{6\frac{2}{3} + 1\frac{3}{8} + 5\frac{5}{6} - 1\frac{1}{2}}{8\frac{7}{8} - 2\frac{5}{6}}$$

4. Express  $\frac{8}{11}$  as a decimal, and add together 8.27, 8.27, 8.27.
5. Find the number of yards in .72 of .2018 of 3 miles 4 furlongs 35 poles, and divide 8886.66 by .00037.
6. Find the least common multiple of 111, 4,329, and 273.
7. If a carrier receives £1 16s. 9d. for the carriage for 100 miles of 7 hundredweight 3 quarters 14 pounds, how much ought he to carry 150 miles for a guinea?
8. Find the cost of painting the four walls of a hall 41 feet 2 inches long, 32 feet 4 inches broad, and 21 feet high, at 10d. per square yard.

9. Find the amount after three years of £947 7s. 4d. when lent at  $4\frac{1}{8}$  per cent per annum simple interest.

10. Find the compound interest on £787 10s. for three years at  $3\frac{1}{2}$  per cent per annum.

11. A grocer mixes 12 pounds of tea at 1s. 6d. per pound with two pounds of tea at 2s. 8d. per pound. At what price must he sell the mixture in order that he may gain 25 per cent?

12. A man holds £5,000  $2\frac{1}{2}$  per cent stock. He sells out at 87 and invests the proceeds in 5 per cent stock at 150. Find the difference in his income.

13. Two pipes can fill a cistern in 3 and 4 hours respectively, and a waste-pipe can empty it in 6 hours. If the cistern is empty, and the pipes are all opened, in how many hours will the cistern be half full?

## GRAMMAR.

1. Decline throughout—*πούς, μήτηρ, ἰππεύς, σώφρων, τρεῖς*.

2. Give the gender and the genitive plural of—*obses, lapis, tussis, gigas, lepus*; and the genitive singular of—*idem, alter, unus, quisque, princeps, robur*.

3. Give the Greek and Latin for—whence? whither? nevertheless, even, thirteen, one thousand boys, four thousand dogs, twice.

4. Write down in full—

(1) Perf. Indic. of *λαμβάνω*. (2) 2d (strong) Aor. Ind. Mid. of *τίθημι*.

(3) Pt. (weak) Aor. Imperat. Act. of *ἐλαύνω*. (4) Imperf. Indic. Act. of *δηλόω*. (5) Plupf. Ind. Pass. of *πράσσω*. And give the principle parts of—*δεῖδω, οἶδα, αἰσθάνομαι, τιτρώσκω, ἄφαιρέω*.

5. Write down:—

(1) Second sing. pres. Imperat. of—*fio, morior, dico*.

(2) First sing. pres. Subj. active of—*do, volo, possum*.

(3) Second plur. fut. Indic. pass. of—*condo, impleo*.

(4) First sing. perf. Indic. act. of—*pereo, lavo, tero, pergo, discindo*.

(5) Supines of—*necto, pario, gero, servio, redimo*.

6. Translate into Latin:

(1) The more they have, the more they desire.

(2) How dare you say such a thing, when you know it is not true?

(3) Most of all the wall was many feet high, but at one place it was too low to be safe.

7. Translate into Greek:

(1) He refused to come into the city because of the plague (*νόσος*).

(2) I must see you before you go away.

(3) Some were silent, but others spoke well.

## FOR LATIN PROSE.

I. Translate into Latin prose:

It was the opinion of Marcian that war should be avoided as long as it is possible to preserve a secure and honorable peace, but it was likewise his opinion that peace can not be honorable and secure if the sovereign betrays a pusillanimous aversion to war. This temperate courage dictated his reply to the demands of Attila, who insolently pressed the payment of the annual tribute. The emperor signified to the barbarians that they must no longer insult the majesty of Rome by the mention of a tribute; that he was disposed to reward with becoming liberality the faithful friendship of his allies; but if they presumed to violate the public peace, they should feel that he possessed troops and arms and resolution to repel their attacks. The same language, even in the camp of the Huns, was used by his ambassador Apollonius, whose bold refusal to deliver the presents till he had been admitted to a personal interview, displayed a sense of dignity, and a contempt of danger, which Attila was not prepared to expect from the degenerate Romans.

## II. Translate into Oratio Recta:

(1) *Se quin clausas habuisse portas non separantem suas res a publicis, sed timentem qui fuis cædibus esset futurus: postquam animadverterit eas, qui liberassent patriam, servare etiam liberatem velle, non dubitasse quin et corpus suum et cætera omnia, quæ suæ tutelæ essent, patriæ restitueret.*

## (2) Into Oratio Obliqua:

*Pro tuo summo beneficio, Scipio, tibi gratias ago, quod mihi vitam incolumitatemque polliceris, et forsân uterer isto beneficio, si non ei summum scelus adjungeretur. Egone contra Cæsarem apud quem ordinem duxi, ejusque exercitum, pro ejus dignitate depugnavi, armatus stabo? Non ego istud facturus sum.*

Passages for translation were given in the various works of the Greek and Latin authors which might possibly be offered. From each work two or three passages were quoted, taken from different parts of the work. In each passage from two to four words were underscored with the direction that such words should be parsed and, in case of verbs, that the principal parts should be given.

There is also a special examination in additional subjects, which under certain circumstances enables candidates for a degree to omit the first public examination. Every such candidate is at liberty to offer himself for examination in an additional subject at responsions, either at the same examination at which he offers stated subjects or at another examination.

I. Every such candidate must offer one of the following subjects:

(1) A portion of a Greek or Latin historical or philosophical author.

He may offer any one of the following: Herodotus, Books 5, 6. Plato, *Apology* and *Meno*. Livy, Books 21 and 22. Tacitus, *Histories* 1-3.

(2) A portion of a French, German, or Italian historical or philosophical author.

He may offer any one of the following: Boissier, *Cicéron et ses amis* (omitting the *Essays on Atticus and Cælius*). Montesquieu, *Esprit des Lois*, Books 1-10. Ranke, *Savonarola und die florentinische Republik gegen Ende des fünfzehnten Jahrhunderts* (in *Historisch-biographische Studien*). Schiller, *Ueber naive und sentimentalische Dichtung*. Machiavelli, *Il Principe*. Dino Compagni, *Cronaca Fiorentina* (third edition, Turin, 1884, *Tipografia e Libreria Salesiana*).

(3) A portion of Bacon's *Novum Organum*. Book 1.

(4) The Elements of Logic, Deductive and Inductive.

As responsions is a preliminary examination, there are several substitutes for it.

All these substitutes are allowed for women also, and some others in addition. In particular there is a special first examination for women, the standard of which corresponds with that of responsions.

These are the regulations:

Every candidate must pass at the same examination in—

1. Any two of the following languages: (a) Latin, (b) Greek, (c) French or Italian, (d) German.

2. Arithmetic.

3. (a) Euclid, Books I and II, or (b) algebra to simple equations, including addition, subtraction, multiplication, division, greatest common measure, least common multiple, fractions, extraction of square root, and simple equations containing one or two unknown quantities, and problems producing such equations.

The books to be prepared are, in Latin—in 1894, either Cicero, *Pro Murena*, *Pro Lege Manilia* (*De Imperio Cn. Pompeii*), or Virgil, *Aen. I, II.* In 1895, either Sallust, *Cat. et Jugurth.*, or Virgil, *Aen. I, II.* In 1896, either Caesar, *Bell. Gall. I-IV*, or Horace, *Odes, I, II*, and in Greek—in 1894, either Euripides, *Hecuba*, and *Medea*, or Xenophon, *Anabasis I-IV.* In 1895, either Euripides, *Hecuba*, and *Medea*, or Xenophon, *Anabasis IV-VII.* In 1896, either Euripides, *Alcestis*, and *Medea*, or Xenophon, *Anabasis, IV-VII.*

No books are prescribed in the other languages. No candidate may offer more than two languages.

Candidates are examined in such manner as to test especially their knowledge of the grammar of the languages selected. Candidates must also translate a piece of English into Latin, French, or Italian, and German, as the case may be.

The following are accepted by the delegates as exempting from the first examination for women or responsions:

(a) The matriculation examination of the University of London; (b) the previous examination of the University of Cambridge; (c) the preliminary examination in arts of the Victoria University, if the candidate has passed in the same examination in two of the languages, Latin, Greek, French, German, and in mathematics; (d) the Cambridge higher local examinations, if the candidate has passed in Group C and in two of the five languages, Latin, Greek, French, German, Italian; (e) the Oxford senior local examinations, if the candidate has passed in the same examination in either algebra or Euclid and (with the special recommendation of the examiners) in two languages of Section C; (f) the examination for higher certificates of the Oxford and Cambridge Schools examination board, if the candidate has passed either in two subjects of Group I, and in elementary mathematics, or in one Greek and one Latin book, in Greek and Latin grammar, in translation from English into Latin, in arithmetic, and in either algebra or Euclid; (g) the final pass examination of the Royal University of Ireland or the honor examination at the end of the first, second, or third year, if the candidate has passed in two of the five languages, Latin, Greek, French, German, Italian, in arithmetic, and in either algebra or Euclid.

Graduates of any American university admitted to membership of the Association of Collegiate Alumnae (U. S. A.) are excused the first examination, if they become candidates for an honor certificate at the second examination.

A copy of the time table will be sent to each candidate about a fortnight before her examination. No papers will be sent on Monday morning.

#### THE FIRST PUBLIC EXAMINATION.

This examination, known usually as moderations (or Mods.), must be taken not earlier than the fourth term or later than the ninth term after matriculation. No candidate is admitted who has not passed responsions or a substitute.

It consists of:

I. An examination in Holy Scripture.

II. An examination of candidates not seeking honors.

III. An examination of candidates seeking honors in (a) Greek and Latin literature or (b) mathematics.

I. The examination in Holy Scripture consists of: (a) One of the



synoptic gospels, and the Gospel according to St. John; (b) either the subject-matter of the Acts of the Apostles or that of some portion of the Old Testament.

There are certain special exemptions from this examination.

II. Examination of those who do not seek honors (pass moderations).

The subjects are: (a) Three books at least, being portions of Greek and Latin authors of the best age, one Latin and two Greek or two Latin and one Greek, one of such books at least being some portion of a historical or a philosophical work. (b) Either logic or the elements of geometry and of algebra.

(a) The list of Latin and Greek books is as follows:

Greek: Herodotus, V, VI; Thucydides, VI, VII; Xenophon Memorabilia, I, II, IV; Plato, Apologia, Meno; Aristotle, Politics, I, III; Homer, Odyssey, VI-XII; Aristophanes, Acharnenses, Ranae; Demosthenes, De Corona.

Latin: Livy, XXI, XXII; Tacitus, Histories I-III; Sallust, Bellum Catilinarium and Jugurthinum; Cicero, either Pro Murena, Pro Milone, or Pro Roscio Amerino, Pro Milone; Terence, Andria, Phormio, Adelphi; Virgil, Æneid, I-VI; Horace, Sat. I, II; Epist. I, II; Juvenal (except Sat. II, VI, IX, XV, XVI).

(b) In mathematics the subjects are: Algebra, including quadratics, ratio, and proportion; geometry, including Euclid, Books III and IV.

In logic the subjects are: The elements of logic, deductive and inductive. These subjects may be studied in Fowler's Elements of Deductive Logic and the first five chapters of Fowler's Elements of Inductive Logic (omitting the sections on classification, nomenclature, and terminology, and the notes appended at the end of each chapter), or in Jevons's Elementary Lessons in Logic, or in any other works which cover the same ground.

III. Examination of those who seek honors (honor moderations).

(a) Classics:

Candidates are examined in the following subjects: Books, subjects, composition.

(1) Books. Translation of passages taken from Homer, Virgil, Demosthenes, and Cicero's Orations. (These are the four necessary books.) Three hours are allowed for each of the two papers set.

(2) Translation of passages from books other than these. Three hours.

(3) Portions of authors specially offered. Candidates are required to offer three books from the following list, not more than one from each part:

- (1) Æschylus, the Trilogy, or any four plays including the Agamemnon.
- (2) Sophocles, any three plays; or any two plays with the Agamemnon of Æschylus.
- (3) Euripides, any four of the following plays: Bacchæ, Hippolytus, Ion, Iphigenia in Tauris, Medea, Phœnisæ, Hecuba, Alcestis.
- (4) Aristophanes, any three of the following plays: Acharnenses, Aves, Equites, Nubes, Ranae, Vespæ.

- (2) Thucydides, any three consecutive books.
  - (3) Pindar, Olympian and Pythian odes.
  - (4) Theocritus.
  - (5) Plato, Republic, Books I-IV; or the Gorgias and Protagoras.
  - (1) Horace, Odes, Epodes, Carmen Sæculare, and Ars Poetica, with either the Satires or the Epistles.
  - (2) Juvenal (omitting Satires 2, 6, 9), with either Persius or one book of the Satires of Horace.
  - (3) Catullus (selections published by the Clarendon Press), with Propertius, Books I-III, or IV, V.
  - (1) Tacitus, Annals, I-IV, or the Histories.
  - (2) Livy, Books II-V.
  - (3) Plautus, any four of the following plays: Amphitruo, Aulularia, Captivi, Menæchmi, Miles Gloriosus, Mostellaria, Rudens, Trinummus.
  - (4) Terence.
  - (5) Lucretius, Books I, II, III, V.
  - (6) Cicero, Letters, Parts I and II of Watson's Selection, or De Oratore, Books I, II.
- Three hours allowed for the paper on each book.

There is also a general paper on grammar, literary criticism, and antiquities. Three hours.

One at least of the following:

- (1) The History of the Greek Drama, with Aristotle's Poetics (omitting cc. 20 and 25).
- (2) The History of Attic Oratory, with Jebb's Selections.
- (3) The History of Roman Poetry to the end of the Augustan Age, with Quintilian, De Instit. Orat., Book X.
- (4) The elements of Deductive Logic with either Magrath's Selections from the Organon, pars. 3-6; 22-33; 36-47; 50-53; 61-66; 68 and first paragraph of 69; 105-112; 118-127. (All these sections are to be understood as inclusive.) Or such portions of Inductive Logic as are contained in Mill's Logic, Bk. III, ch. i-iv, vi-viii, x-xii, and xx.
- (5) The elements of Comparative Philology as applied to the illustration of the Greek and Latin languages, with a special knowledge of either Greek or Latin philology.
- (6) The outlines of the history of Greek sculpture, B. C. 600-320, with the passages on the subject in Overbeck's Die Antiken Schriftquellen.

Three hours are allowed to the paper in each subject.

3. *Composition*.—All candidates will be examined in Latin prose composition.

Papers will also be set in Greek prose composition, and in Greek and Latin verse composition, but (1) the omission of either or both of the verse composition papers may be compensated for by a fourth book taken from the list in Section I, clause 3, or an additional subject taken from the list in Section II. When a candidate under this regulation offers four books he will be required to select one book from each of the four groups A, B, C, D. (2) The omission of Greek prose composition may be compensated for by an additional subject taken from the list in Section II.

Failure in or the omission of any one paper will not necessarily prevent a candidate from obtaining the highest honors.

The following texts will be used in this part of the examination :

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|---|--|
| Homer. Dindorf (Teubner's series).                          | Catullus. Ellis.                             |
| Demosthenes. Dindorf, fourth edition, cur. Blass (Teubner). | Horace. Wickham.                             |
| Æschylus. Paley (Cambridge Texts).                          | Juvenal. Mayor (second edition).             |
| Sophocles. Campbell & Abbott, 1886.                         | Persius. Conington (third edition).          |
| Euripides. Paley (Cambridge Texts).                         | Propertius. Palmer.                          |
| Aristophanes. Merry (Clarendon Press Series).               | Plautus. Mostellaria. Sonnenschein.          |
| Theocritus. Zeigler (Freiburg, 1879).                       | Plautus. Aulularia. Götz & Löwe (Teubner).   |
| Pindar. Christ (Teubner).                                   | Plautus. Amphitruo. Götz & Löwe.             |
| Plato. Baiter & Orelli, fourth or fifth edition (Zurich).   | Plautus. Captivi. Sonnenschein.              |
| Thucydides. Bekker.   | Plautus. Menæchmi. W. Wagner.                |
| Virgil. Papillon and Haigh.                                 | Plautus. Miles Gloriosus. Götz & Löwe.       |
| Cicero (Orations). C. W. F. Müller (Teubner).               | Plautus. Rudens. Götz & Löwe.                |
| Cicero (Letters). Watson.                                   | Plautus. Trinummus. Ritschl (third edition). |
| Cicero (De Oratore). Wilkins.                               | Terence. Wagner.                             |
| Lucretius. Munro (third or fourth edition).                 | Livy. Madvig.                                |
|   | Tacitus. Halm.                               |
|   | Aristotle (Poetics). Vahlen.                 |
|   | Quintilian, Book X. Peterson.                |

(b) The examination for those who seek honors in mathematics includes—

1. Algebra and the theory of equations.
2. Trigonometry, plane and spherical.
3. Pure geometry: analytical geometry of two dimensions.
4. Differential and integral calculus, with applications to plane geometry, and to the geometry of solids and surfaces of revolution: differential equations.
5. The elements of mechanics of solids and fluids, to be treated without the aid of the differential or integral calculus.

The examination in Holy Scripture is held four times in the year, in March, June, October, and December; they pass examination twice—in June and December; honors in classics only once—in March; honors in mathematics twice—in June and December. The fees are £1 1s. for each part.

Women are admitted and examined on the same conditions as men except that—(a) There is a difference in the examinations that exempt them from responsions. (b) There is no rule about the length of residence required before entering for the examination.

#### THE SECOND PUBLIC EXAMINATION.

This examination is generally known as the final schools or by its slang name, "Greats." Here, too, candidates may seek a mere pass, or they may seek honors. The examinations for pass and honors are quite distinct.

As a rule before entering for the final schools, a candidate is expected to have passed responsions and moderations, but there are many exemptions from this rule. In particular, an additional subject taken

at responsions exempts candidates who take certain subjects on the final schools from moderations.

The regulations are too numerous and complicated to quote, but it is worth noting that even in the case of men the university does not always insist on the preliminary examinations. The difference in the case of women is that there is even more elasticity in the arrangement.

The regulations are the following:

(1) *For pass candidates.*—No candidate shall be admitted to any part of this school who has not either (1) obtained honors in the first public examination; or (2) satisfied the moderators in the examination of candidates not seeking honors; or (3) satisfied the moderators in mathematics and passed in an additional subject at responsions; or (4) satisfied the examiners in the preliminary examination of the honor school of jurisprudence and passed in an additional subject at responsions; or (5) satisfied the examiners in the preliminary examination in the honor school of natural science in two subjects and passed in an additional subject at responsions; or (6) passed the higher local examination in two languages in section A and either section D 1, 2, or section E 1.

(2) *For honors candidates.*—No candidate shall be admitted to any honor-school who has not passed either (1) responsions (stated subjects); or (2) the first examination for women (p. 3); or (3) an examination accepted by the delegates as exempting therefrom (p. 3); and no candidate shall be admitted to the honor school of natural science who has not fulfilled the conditions prescribed in *Statt. Tit. VI., Sect. 1. c. § 5, c. 7* (vide Examination statutes).

The following are the regulations for the pass school:

1. The subjects of examination for candidates who do not seek honors shall be arranged in four groups:

A. (1) Two books, either both Greek, or one Greek and one Latin, one of such books being some portion of a Greek philosophical work, and the other a portion of a Greek or Latin historian. (2) The whole or some portions of Greek and Roman history. Candidates will be required to show a knowledge of the political and descriptive geography of the period which they offer. (3) The elements of Sanskrit, including translation into the language and a portion of its literature. (4) The elements of Persian, including translation into the language and a portion of its literature.

B. (1) Either English history and a period or subject of English literature, or a period of modern European history or of Indian history with political and descriptive geography; together (in each case) with English composition. (2) The French language, including composition in the language, and a period of its literature. (3) The elements of political economy. (4) A branch of legal study. Among the alternatives under this head shall always be included one or more branches of Indian law. (5) The German language, including composition in the language, and a period of its literature.

C. (1) The elements of geometry, including geometrical trigonometry. (2) The elements of mechanics, solid and fluid, treated mathematically. (3) The subjects of the preliminary examination in mechanics and physics in the honor school of natural science. (4) The subjects of the preliminary examination in chemistry in the same school. (5) The subjects of the preliminary examination in animal physiology in the same school. (6) The subjects of the preliminary examination in animal morphology in the same school. (7) The subjects of the preliminary examination in botany in the same school.

D. The elements of religious knowledge, which shall always include—(a) Specified portions of the Old and New Testaments, some portion of the New Testament being always offered in the Greek text; (b) some portion of the Old Testament to be



studied in the Hebrew text; (c) one of the creeds with a specified portion of the thirty-nine articles agreed upon in the convocation holden at London in the year 1562; (d) a period of ecclesiastical history; (e) some apologetic treatise, or part thereof, to be fixed from time to time by the board of studies.

Candidates will be required to offer together at the same examination subject (a), and any two of the four other subjects.

2. The examination in C. (3), (4), (5), (6), and (7) shall be the same as the preliminary examination in the same subjects in the honor school of natural science, and shall be conducted by the same examiners.

3. Each candidate shall be examined in three of the above subjects, of which not more than two shall be taken from any one of the four groups, and of which one must be either A. (1) or A. (3) or A. (4), or B. (2) or B. (5), and the examination in the three subjects may be passed in separate terms.

*Regulations of the board of studies.*—The books and subjects which may be offered until further notice are:

#### IN GROUP A.

(1) The effect of the statute, cl. 1, p. 36, is that candidates must offer one book in each of the lists ( $\alpha$ ) and ( $\beta$ ).

$\alpha$ . Greek philosophical works: Plato, Republic I-IV; Aristotle, Ethics, Books I-IV (omitting chapter 6 of Book I), together with chapters 6-10 of Book X (from *Εἰρημένων δὲ* to the end of the Treatise; Politics, Books I, III, VII (following the old order of the books).

$\beta$ . Historians: Greek, Herodotus, VII, VIII; Latin, Livy, XXI-XXIII, Tacitus, Annals, I-III, Cæsar, De Bello Gallico, I-VII.

By the statute, clause 3 and clause 5, candidates may not offer the same books or, except in cases specially excepted by the board of studies, a portion of any of the authors in which they have passed in certain other examinations. The specially excepted cases are:

Candidates who have satisfied the moderators in Aristotle's Politics will be allowed to offer the prescribed portions of the Ethics in the final pass school, Group A. (1).

Candidates who have satisfied the masters of the schools, or the examiners in any examination giving exemption from responsions, or the moderators, or the examiners in the preliminary examination in the honor school of jurisprudence in any portion of Plato other than the Republic, will be allowed to offer the prescribed portion of the Republic in the final pass school, Group A. (1).

Candidates who have satisfied the examiners in the preliminary examination in the honor school of jurisprudence in any portion of the Politics of Aristotle will be allowed to offer in the final pass school, Group A. (1), the prescribed portions of the treatises which they did not offer in the preceding examination.

Papers in the pass school, Group A. (1), will be set from the following texts: Plato, Baiter and Orelli, fourth or fifth edition; Aristotle, Ethics, Bywater; Aristotle, Politics, Bekker; Herodotus, Stein; Livy, Madvig; Tacitus, Halm (Teubner); Cæsar, De Bello Gallico, Hoffmann (Vienna, 1888).

(2) The following portions of Greek and Roman history: Greek, from the legislation of Solon to the death of Epaminondas; Roman, from the establishment of the Republic to the death of Julius Cæsar. Candidates will be required to show a knowledge of the constitutional history, as well as of the political and descriptive geography, of these periods.

(3) Sanskrit, Manu I-VI, and Sakuntala.

(4) Persian, Gulistân, Books VII, VIII; Bûstân, Books I, II, and Sikandarnâma, Cantos XIII-XXIV.

#### IN GROUP B.

(1) Either one of two periods of English history, viz: (a) English history to 1603; (b) English history from 1509 to 1832; together with one of the following subjects

of literature: (a) Piers Ploughman, The Prologue, Passus i-vii; Chaucer, The Prologue, The Knight's Tale, The Nonne Prestes Tale; (b) Shakespeare, Julius Cæsar, Macbeth, Henry V, Twelfth Night, or one of the following periods of modern European history: (a) 1048-1254, to be read in Milman's History of Latin Christianity; (b) 1792-1848, to be read in Fyffe's Modern Europe, Vols. I and II. Candidates will be required, under the head of geography, to show a knowledge of the general principles of physical geography and of the geography of Europe (to the extent represented by Keith Johnston's Geography, Part III, pp. 101-260, ed. 1880), as well as of the political geography belonging to the period which they offer.

(2) French language and composition. (i) The following books are to be specially prepared: (α) Molière, *Le Tartuffe*. (β) Either Corneille, *Les Horaces*, or Racine, *Athalie*. (γ) De Tocqueville, *Ancien Régime*. (ii) A general acquaintance with the history of the literature of the age of Louis XIV will be required. Unseen passages of French will also be set for translation.

(3) The elements of political economy, to be read in Walker's Political Economy, and in the following portions of Adam Smith's *Wealth of Nations*, viz: Book I, chapters 1 to 11 (Part I) inclusive; Book II, chapters 1, 3, 4, 5; Book IV, chapters 1, 2, 7; Book V, chapter 2 (omitting article 4). Candidates will be expected to show an acquaintance with the chief facts of the economic condition of England at the present time.

(4) Either the principles of the English law of contracts, to be studied either in *The Principles of the English Law of Contract* by Sir W. R. Anson (Clarendon Press Series), or in Pollock's *Principles of Contracts in Law and Equity*, or in other works of similar character; or *The Institutes of Justinian*, omitting Book III, Titles 1 to 12, and Book IV, Titles 6 to 18; or *The Hindu Law of the Family, Family Property, and Inheritance*, which may be studied in the *Treatise on Hindu Law and Usage*, by J. D. Mayne.

(5) German language and composition. (i) The following books are to be specially prepared: (α) Schiller, *Die Jungfrau von Orleans*. (β) Either Goethe, *Hermann und Dorothea*, or Lessing, *Nathan der Weise*. (γ) Goethe, *Wahrheit und Dichtung*, Books I-IV. (ii) A general acquaintance with the history of the classical period of German literature (from Klopstock to Goethe) will be required. Unseen passages of German for translation will also be set.

#### IN GROUP C.

(1) The elements of plane geometry, including the doctrine of similar triangles, viz, Euclid, Books I-IV, with the definitions of Book V, and Book VI, Propositions 1-19.

The elements of trigonometry, including the trigonometrical ratios of the sum of two angles, the solution of plane triangles, the use of logarithms, and the mensuration of plane rectilinear figures.

(2) The elements of the mechanics of solid and fluid bodies, including the composition and resolution of forces, center of gravity, the simple machines and the application of virtual velocities to them, the laws of motion, the laws of falling bodies, the motion of projectiles, the pressure of fluids on surfaces, the equilibrium of floating bodies exclusive of the theory of stability, the methods of determining specific gravities, the laws of elastic fluids, simple hydrostatical and pneumatical machines.

(3) (4) (5) (6) (7). [The examination in these subjects is by Statt. VI. 1. C. § 2, cl. 2, p. 37, the same as the preliminary examination in the same subjects in the Honor School of Natural Science, viz: (3) Mechanics and physics (p. 53); (4) chemistry (p. 56); (5) animal physiology (p. 58); (6) animal morphology (p. 59); (7) botany (p. 60).]

<sup>1</sup>Change made in Michaelmas term, 1894. Before that time the prescribed plays were King John, Richard III, Hamlet, King Lear.

IN GROUP D.<sup>1</sup>

Candidates will be required to offer together at the same examination the subject (a) and any two of the four other subjects (b), (c), (d), (e).

- (a) Ezra and Nehemiah, with Haggai and Malachi, and The General Epistle of St. James and the First Epistle of St. Peter, to be studied in the original Greek. [N. B. The passages from the Old Testament will be set from the Revised Version, and those from the New Testament from the Oxford Text of 1881.]
- (b) Exodus, i-xi, to be studied in the original Hebrew.<sup>2</sup>
- (c) The Apostles' Creed, together with the Articles of Religion I-VIII.
- (d) The Beginnings of the English Church, from the coming of St. Augustine to the death of Theodore.
- (e) Either Butler's Analogy of Religion, Part II, chaps. i-vii, or G. P. Fisher: The Grounds of Theistic and Christian Belief, chaps. v, vi, vii, viii, ix, xi.

For the pass schools there is no limit of time. For honors no one may enter before the eleventh or after the seventeenth term, unless honors have been already obtained in some other school. As Oxford counts four terms to a year, this means that the final schools are usually taken at the end of the third or fourth year, more commonly in the fourth. A candidate who fails in the pass schools may try again; a candidate for honors may not.

The rules as to number of terms do not of course apply to women, as the university takes no notice of their residence and the delegacy merely inquires as to the preliminary examinations which have been passed.

## THE HONORS SCHOOLS.

There are eight distinct examinations, among which the candidate may choose one. These are: (1) *Literæ humaniores*, (2) mathematics, (3) natural science, (4) jurisprudence, (5) modern history, (6) theology, (7) oriental studies, (8) English language and literature.

As there is as yet no school for modern languages, the delegates provide a special one for women and they have also provided one hitherto in English, which will probably be discontinued.

I. *LITERÆ HUMANIORES*.

This is the school through which a great majority of Oxford men pass to the B. A. degree. The following is quoted from the preface of an account of it which appears in the Student's Handbook:

The school of *literæ humaniores*, as it is the oldest, so it is admitted on all hands to be the premier school in dignity and importance. It counts the largest number of candidates, it includes the greatest proportion of the ablest students, it covers the

<sup>1</sup>These regulations came into force in Michaelmas term, 1894.

<sup>2</sup>A question having arisen as to the nature of the examination in the portion of the Old Testament prescribed for study in Hebrew, in Group D (b), the Board of the Faculty of Theology are of opinion that it is set as a subject of linguistic study, and that only such knowledge of the subject-matter will be expected as is necessary for the interpretation of the text.

widest area of study, it makes probably the severest demands both upon examiner and candidate; it carries the most coveted distinction. The course of combined studies for this school is peculiar to Oxford. It is believed to confer a fine mental discipline and to favor a catholic and genuine culture. No one has claimed for it the manufacture of specialists; but most Oxford men, naturally proud of its tradition, have believed that there are few special studies for which it does not provide a sound preliminary training.

The examination includes the Greek and Latin languages, the histories of ancient Greece and Rome, logic and the outlines of moral and political philosophy.

The examination consists of two parts, stated subjects and special subjects. Papers or questions will always be given in stated subjects; special subjects are offered by the candidates themselves. The stated subjects consist of the following:

*Greek and Latin languages.*—All candidates will be expected to translate the Greek and Latin books offered by them for examination, and to translate passages from other books not specially offered.

Passages will also be set for translation into Greek and Latin prose.

*The histories of ancient Greece and Rome.*—All candidates are required to offer a period of Greek and a period of Roman history. The periods which may be offered are for the present—

In Greek history (1) to the end of the Peloponnesian war, (2) from B. C. 500 to the death of Philip. With the first of these periods candidates are recommended to offer Herodotus, Thucydides, Xenophon's Hellenics I, II. With the second, Herodotus V–LX, Thucydides, Xenophon's Hellenics, Demosthenes, Olynthiacs, Philippics, De Falsa Legatione, and De Corona.

In Roman history (1) from the beginning of the First Punic War to the Battle of Actium, (2) from the end of the Third Punic War to the accession of Vespasian. With the first of these periods candidates are recommended to offer Polybius (Strachan Davidson's Selections), Plutarch's Lives of the Gracchi, Cicero's Letters (Watson's Selection), Sallust, Cataline and Jugurtha, Tacitus, Annals I–VI. Candidates will be expected to show such a knowledge of classical geography and antiquities, and of the general history of Greece and Rome, as shall be necessary for the profitable study of the authors or periods which they offer.

Questions will be also set in the general results of the science of language, with especial reference to Greek and Latin.

*Logic and the outlines of moral and political philosophy.*—Under the head of logic, candidates are recommended to study the following subjects: The nature and origin of knowledge; the relation of language to thought; the elements of the logic of Aristotle, with the history of logic in Greece to the time of Aristotle, inclusive; the theory of syllogism; scientific method, including a comparison of the methods of different sciences, and the principles of historical evidence. Questions will be set in Bacon's *Novum Organum*, Book I and Book II, aphorisms 1–20.



Under the head of political philosophy, candidates are recommended to study the following subjects: The origin and growth of society; political institutions and forms of government, with especial reference to the history of Greece and Rome; the sphere and duties of government; the leading principles of political economy.

The following books are prescribed for the examination: (1) Plato's Republic; (2) Plato's Protagoras, Phædrus, Gorgias, Laws, III, VII, X; (3) Aristotle's Nicomachean Ethics; (4) Aristotle's Politics; (5) Locke on the Human Understanding, with either (a) Butler's Sermons or (b) Hume's Enquiry concerning the Principles of Morals; (6) The Transcendental *Æsthetik* and *Analytik* in Kant's *Kritik der reinen Vernunft*, and the *Grundlegung zur Metaphysik der Sitten*, with the two chapters of the *Kritik der praktischen Vernunft*, entitled severally *von den Grundsätzen* and *von den Triebfedern*, der reinen praktischen Vernunft. (The prescribed portions of Kant may be offered in an English translation as well as in the German. Candidates, if they offer a translation, are requested to state in their list of books which translation they offer.)

Out of this list candidates are recommended to offer one book of Plato and another of Aristotle. Those who offer more than these two books may either select from this list a third book, either ancient or modern, or offer one of the special subjects. But candidates who have offered Plato's Republic and Aristotle's Nicomachean Ethics may, if they think proper, offer a part of the politics without bringing up the whole.

Candidates will be expected to show such knowledge of the history of philosophy or of the history of the period of philosophy to which the philosophical authors offered by them, either as stated or as special subjects, belong, as shall be necessary for the profitable study of these authors.

Candidates may offer as a special subject any one of the following:

Greek and Latin languages:

- (1) The Greek dialects.
- (2) The lyric and elegiac poets of Greece (Bergk's *Poetæ Lyrici Græci*), with the corresponding period of the history of Greek literature.
- (3) Aristophanes, with special reference to the contemporary history of Athens.
- (4) The languages of ancient Italy, other than Latin.
- (5) Any six plays of Plautus and the plays of Terence, with a critical study of one play of each author.
- (6) The epic poets of the silver age of Latin, with a study of the Latinity of the period.
- (7) Textual criticism and palæography.
- (8) Comparative philology as illustrating the Greek and Latin languages.

Ancient history:

- (1) Assyrian and Babylonian history to 538 B. C., with Diodorus, Book II. (The fragments of Berosus should also be studied.)
- (2) Egyptian history to the Persian Conquest, with Herodotus II and Diodorus I. (The fragments of Manetho should also be studied).

## Ancient history—Continued.

- (3) The heroic age, with translations and explanations of passages from the Iliad and Odyssey.
- (4) The life and times of Alexander.
- (5) The Archæan League.
- (6) Ancient chronology.
- (7) The geography of the Peloponnese.
- (8) The history of Greek commerce and navigation.
- (9) Ancient sculpture, its history and subjects, in connection with the passages from ancient writers collected in Overbeck's *Antike Schriftquellen zur Geschichte der bildenden Künste*.
- (10) Ancient painting, its history and subjects, including the painting of vases.
- (11) The Greek deities, considered especially with reference to representations in ancient art.
- (12) The topography of Athens and Attica.
- (13) The regal period of Rome.
- (14) The constitutional history of Rome down to the war with Pyrrhus.
- (15) The period from 69 A. D. to the death of Vespasian.
- (16) The reigns of Trajan and Hadrian.
- (17) The reign of Diocletian.
- (18) The procedure in public and private trials under the Republic.
- (19) The municipal system in Italy and the Western Provinces from the enfranchisement of Italy to the death of Domitian.
- (20) The Roman military system from the commencement of the Punic wars to the death of Domitian.
- (21) The history of the Roman roads down to the accession of Trajan.
- (22) The architecture and topography of Rome so far as they illustrate the history of the Republic and early Empire.

## Philosophy:

- (1) Aristotle, *De Animâ*.
- (2) Aristotle, *Rhetoric*.
- (3) The history of Greek philosophy from Thales to Socrates, inclusive, with a special study of either Plato *Theætetus*, or Plato *Sophista*, or Aristotle *Metaphysics*, Book I.
- (4) The philosophy of the Stoics and Epicureans, with a special study of the *Discourses of Epictetus*, the *Meditations of Marcus Aurelius*, and the *Tenth Book of Diogenes Lærtius*.
- (5) The history of English moral philosophy from Hobbes to Hume inclusive, with a special study of the ethical works of the following authors: Hobbes, Hume, together with either Cudworth and Shaftesbury, or Clarke and Butler.
- (6) The philosophy of Hume and Berkeley, with a special study of Berkeley's *Principles of Human Knowledge and Alciphron*, and with Hume's *Enquiry concerning Human Understanding*.
- (7) The philosophy of Spinoza, with a special study of the *Ethics*.
- (8) Experimental psychology, with a special study of one or more treatises selected by the candidate.
- (9) Theories of the state and forms of government, with a special study of one or more treatises selected by the candidate.
- (10) Political economy, with one or more treatises to be selected by the candidate.

Candidates are recommended not to offer more than one special subject. It is not necessary for the attainment of the highest honors that any special subject should be offered.

Candidates intending to offer any subject not included in the preceding list must give notice of their intention six months before the examination, and obtain the approval of the board of the faculty.

Examination papers in the honor school of literæ humaniores will be set from the following texts:

|   |   |
|---|---|
| Plato. Baiter and Orelli (fourth or fifth edition). | Demosthenes. Dindorf, fourth edition, cur. Blass (Teubner). |
| Aristotle. Nicmachæan.                              | Livy. Madvig.   |
| Ethics. Bywater.                                    | Tacitus. Halm (Teubner).                                    |
| Aristotle. Other treatises. Bekker.                 | Xenophon. Dindorf.  |
| Thucydides. Bekker.                                 | Plutarch's Lives. Sintenis.                                 |
| Herodotus. Stein.                                   | Cicero. Watson.   |
| Polybius. Strachan Davidson.                        | Sallust. Jordan.  |

The examination takes places annually in June, and consists of two parts, paper work and viva voce.

The papers may be classed as follows:

*Subject papers.*—Logic (including questions in Aristotle, Bacon, the theory of knowledge, of the syllogism, etc.). Moral philosophy (including questions on the Republic and ethics, as well as on modern problems and interests). Ancient history and political philosophy (including questions on the relations between Greek and Roman history, and matters not specially covered by the next two papers enumerated, as well as on the four subjects above enumerated). Greek history, with reference to the period offered by the candidate. Roman history, with reference to the period offered by the candidate.

*Papers in prepared texts.*—Greek philosophy texts (usually Republic and Ethics). Greek history texts (usually Herodotus, Thucydides, Xenophon). Roman history texts (usually Plutarch, Sallust, Cicero, Tacitus).

*Scholarship papers.*—A passage of English prose for translation into Greek prose. A passage of English prose for translation into Latin prose. Unprepared passages of Greek and Latin for translation into English.

*Special subjects, or extra books.*—Candidates may offer special subjects or extra books in addition to the foregoing, or in compensation for some omission. Two papers are generally given in each special subject or book offered.

Three hours are allowed for each paper, and two papers are usually given for each day. The written examination thus lasts five and a half days, or thirty-three hours, and occupies the seventh week of the Trinity term. The viva voce takes place after an interval of about three weeks, in which the examiners are perusing the written work, and is public. Each candidate is taken separately in viva voce; some candidates are released after a very short examination, either because the papers are so poor that there is not much use in trying to improve them by further questions, or because the papers are so good that no further questions

are necessary. It is in cases of doubt that the questions are continued to an hour or even longer. Questions in philosophy, in history, and in the corresponding texts are asked.

## II. MATHEMATICS.

The subjects of examination are (1) pure mathematics, (2) mixed mathematics.

The following is the syllabus of the subjects in which candidates shall be examined:

*Pure mathematics.*—(1) Algebra; (2) trigonometry, plane and spherical; (3) geometry of two and three dimensions; (4) differential calculus; (5) integral calculus; (6) calculus of variations; (7) calculus of finite differences; (8) theory of chances.

*Mixed mathematics.*—(1) Mechanics of solid and fluid bodies; (2) optics, geometrical and physical; (3) astronomy.

The subjects of the papers in the examination will be as follows:

*Elementary papers.*—(1) Algebra and trigonometry; (2) geometry; (3) elementary differential and integral calculus, together with solid geometry; (4) elementary mechanics and hydrostatics; (5) optics and astronomy. The use of the differential and integral calculus to be allowed in papers 4 and 5.

*Advanced papers.*—(6, 7, 8) Pure mathematics; (9, 10, 11, 12) mixed mathematics; (13) problems in pure and mixed mathematics.

Thirteen papers are given in this examination, and they are upon the following subjects: Five elementary papers on algebra and trigonometry, geometry, differential integral calculus, together with solid geometry, elementary mechanics, hydrostatics, optics and astronomy, in which four subjects the differential and integral calculus is allowed. There are thirteen advanced papers on the subjects of pure and mixed mathematics.

## III. NATURAL SCIENCE.

The natural science school is divided into a number of coordinate divisions. These are (1) physics, (2) chemistry, (3) geology, (4) animal physiology, (5) animal morphology, (6) botany.

And the final honor examinations in these subjects are preceded by certain preliminary examinations, which correspond to some extent with the second public examination.

These preliminary examinations are given in (1) mechanics and physics, (2) chemistry, (3) animal physiology, (4) animal morphology, (5) botany.

(1) *Physics.*—In the preliminary examination candidates are examined in certain elementary portions of mechanics, sound, light, heat, magnetism, and electricity. Two papers are given. The questions do not involve mathematics beyond simple equations, and may as a rule be answered from an accurate knowledge of such books as Blaikie's *Dynamics* and Deschanel's *Ganot's Elements of Physics*. A practical examination in physics forms part of the preliminary, in which examination the final examination candidates are expected to show an accurate general knowledge of physics and are allowed to present



themselves, in addition, for a more detailed examination in one or more of the following branches of the subject: Acoustics, light, heat, electricity, and magnetism.

A practical examination is also given, which lasts for two days, and implies a knowledge of the most important physical measurements and methods of investigation.

The pass schools are held in June and December; the honors schools, as a rule, only in June. The fee for pass schools is £1 1s. for the first subject and 10s. 6d. for every other. For honors, £2 2s., except for mathematics, which is £1 11s. 6d.

After all these examinations the names of successful candidates are arranged in classes and publicly posted up. They are then published in the University Gazette, and the women's class list appears here too, as also in the university calendar.

Summing up the position of women, it may be roughly said that all the regulations published in the examination statutes (Clarendon Press) apply to them equally with men, except those that deal with residence.

These are the regulations for the special women's honor examinations:

No candidate shall be admitted to either part of the second examination for women (honors) who has not passed either (1) responsions (stated subjects), or (2) the first examination for women (p. 3), or (3) an examination accepted by the delegates as exempting therefrom.

#### ENGLISH.<sup>1</sup>

Papers will be set on the prescribed books, on English literature and its history to 1820, and on the philology and history of the English language. The following works must be specially studied:

|  |  |
|--|--|
| Wright, Gothic Primer (Clarendon Press).   | Piers the Plowman (Skeat).   |
| Beowulf, 1-2199.   | Spenser. Faery Queen, Book I.  |
| Sweet's Extracts from Orosius (Clarendon Press, 1885).   | Shakespeare. Macbeth; Julius Cæsar; The Tempest.   |
| Sweet's Selected Homilies of Ælfric (Clarendon Press, 1885).   | Bacon. Essays.   |
| Sweet's Anglo-Saxon Reader (Nos. ii, iii, xiii-xvi, xxi).  | Milton. Paradise Lost, I-IV; Areopagitica, Comus, Lycidas, Il Penseroso, L'Allegro, and the Sonnets. |
| Morris's Specimens of Early English, Part I, 2nd edition (Nos. v, vi, ix, xv-xix).                             | Dryden. Absalom and Achitophel, Part I.  |
| Morris and Skeat's Specimens of Early English, Part II, 2nd edition, (Nos. i, v, vii, ix-xi, xiii, xvi, xvii). | Addison. Selections, iv, v, vi (T. Arnold).  |
| Chaucer. The Prologue; The Man of Lawes Tale (Morris).   | Pope. Essay on Man.  |
|  | Johnson. Lives of Milton, Dryden, Pope.  |
|  | Burke. On Present Discontents.   |
|  | Wordsworth. Selections (Matthew Arnold).   |
|  | Byron. Selections (Matthew Arnold.)  |

<sup>1</sup> The examination in this subject will probably be discontinued after the year 1895, as it is expected that the first examination in the honor school of English language and literature will be held in 1896.

## FRENCH, GERMAN, ITALIAN, AND SPANISH.

Candidates must offer Part I of two languages and Part II of one of them.

In each Part I the examination will consist of composition, of papers on the prescribed books, and of unprepared passages for translation into English.

In each Part II papers will be set on the prescribed books, on the history of the literature, and on the philology and grammar of the language.

## FRENCH.

*Part I.*

Molière. *Le Misanthrope*; *Les Femmes Savantes*; *Les Précieuses Ridicules*.  
 Corneille. *Le Cid*.  
 Racine. *Athalie*; *Les Plaideurs*.  
 Voltaire. *Mérope*.  
 Victor Hugo. *Les Travailleurs de la Mer*; *Hernani*; *Légende des Siècles*, §§ i-xxx (édition définitive).

(Editors' names are given in parenthesis.)

*Part II.*

Alexis. (G. Paris.)  
*La Chanson de Roland*. (Stengel with Gautier.)  
*Le Roman de Rou*, Part III, ll. 7338-8998. (Andresen.)  
*Le Chevalier au Lion*. (W. L. Holland.)  
*Aucassin et Nicolette*. (Suchier.)  
*Le Roman de la Rose* (Extract in Bartsch and Horning).  
*Joinville, Vie de S. Louis*. (N. de Wailly.)  
*Satire Ménippée*. (Ch. Read.)

## ITALIAN.

*Part I.*

Dante. *Inferno*.  
 Tasso. *Gerusalemme Liberata*, 1, 2, 3.  
 Alfieri. *Congiura dei Pazzi*.  
 Gherardi del Testa. *Le Coscienze elastiche*. (Vockeradt.)  
 Manzoni. *Poesie*.  
 Leopardi. *Pensieri, Operette Morali*. (Ranieri.)

## GERMAN.

*Part I.*

Lessing. *Nathan der Weise*; *Laokoon*.  
 Goethe. *Faust* (Part I); *Iphigenie*; *Wahrheit und Dichtung* [Parts I and II (books i-x)].  
 Schiller. *Wallenstein* (the whole); *Wilhelm Tell*.

*Part II.*

Wright. *Gothic Primer* (Clarendon Press.)  
 Braune. *Althochdeutsches Lesebuch*: pages 8-17; 40-49; 53-57; 76-153.  
*Nibelungenlied*. (Bartsch.)  
 Wolfram von Eschenbach. *Parzival*, book iii. (Bartsch.)  
 Hartmann von Aue. *Iwein* [ll. 2971-3702]. (Bech.)  
 Hartmann von Aue. *Der arme Heinrich*. (Paul.)  
 Wernher der Gärtner. *Meier Helmbrecht*. (Lambel.)  
 Bartsch. *Deutsche Liederdichter des zwölften bis vierzehnten Jahrhunderts*; I-VIII; XIV-XV; XXI-XXII; XXV; XXXIII.

## SPANISH.

*Part I.*

\*Cervantes. *Don Quijote*, Part I; *La Gitanilla*; *La Española Inglesa*; *Coloquio de los Perros*.  
 \*Calderón. *Mágico Prodigioso*; *Alcalde de Zalamea*.  
 \*Solís. *Historia de la Conquista de Méjico*.  
 Cánovas del Castillo. *El Solitario y su Tiempo*.  
 Juan Valera. *Estudios*.

## Part II.

{ Giocoma da Verona. De Jerusalem  
 Celesti et gaudio sanctorum.  
 S. Francesco d'Assisi. Laude.  
 Brunetto Latini. Tesoretto, prologue.  
 { Giacomini Pugliese da Prato. Poesie.  
 Selections.  
 Folgore de San Geminiano. Gli mese;  
 la settimana.  
 { (Ulrich, Lesebuch, and Nannucci.)  
 Dante. Vita Nuova.  
 Villani. Cronica, Bks. 6, 7, 8. (Du-  
 rando.)  
 Petrarca. Trionfi.  
 Michel Angelo. Sonetti (pub. by Bar-  
 bera).  
 Vasari. Lives of Leonardo da Vinci,  
 Michel Angelo.

## Part II.

\* Poema del Cid. (Sanchez or Volmül-  
 ler.)  
 \* Don Juan Manuel. El Conde Lucanor.  
 (Gayangos.)  
 \* Romancero del Cid. (Michaelis, pub.  
 by Brockhaus.)  
 \* Ámadis de Gaula, Bk. I, and Discurso  
 Preliminar. (Gayangos.)  
 \* Santa Teresa. Libro de su Vida. (La  
 Fuente.)  
 \* Garcilaso de la Vega. Églogas. (de  
 Castro.)  
 Guillén de Castro. Mocedades del Cid.  
 (Merimée.)  
 Books marked \* may be found in the  
*Biblioteca de Autores Españoles*. (Ri-  
 vadeneyra, Madrid.)

A candidate may offer Part I of two languages and Part II of one language in two consecutive years. Her performance in the two examinations will be considered by the examiners in determining her place in the class list.

A viva voce examination in these modern languages for such as desire it will be held in Oxford. It will comprise writing from dictation, reading aloud, and conversation. Candidates who satisfy the examiners in this portion of the examination, as well as in that conducted on paper, will have a special note to that effect added to their certificates.

Candidates who pass in this section may, on a future occasion, offer the other languages of the section.

## V. METHODS OF STUDY.

At Oxford the teaching is partly provided by the university and partly by the colleges. There are university lectures given by professors and readers and tutors, and collegiate lectures provided by agreement among the different colleges, in such a way that the instruction shall not overlap. These are given by college tutors and lecturers. There are college lectures given for members of one college only, and, lastly, there are private "coaches" who give special instruction privately. This is sometimes required by backward students who need help to enable them to keep up with others, but perhaps more often for forward students who want to pass on more quickly and be guided in their advanced studies.

A course of lectures usually consists of one, two, or, most commonly, three lectures a week, and the delivery of a lecture occupies a little less than one hour. The favorite hours for lectures are at 10, 11, and 12, but sometimes they are given later in the day.

A very large number of university and college lectures are open to women; in fact, it is very rarely that they are refused admittance. Besides the university lectures, the Association for the Education of Women provides lectures that are not provided by the university, notably in modern languages.

Appended is the list of (I) association lectures and (II) university and college lectures open to women. It will be seen that the list is a long one and that instruction in every subject required is thus supplied.

*Association for the Education of Women in Oxford, Lent term, 1895.*

## I.—ASSOCIATION LECTURES (see A p. 835).

| Subject and term's work.   | Stand-<br>ard. | Lecturer.                   | Time.   | Course be-<br>gins— | Fee.    |
|--|----------------|-----------------------------|---|---------------------|---------|
| Modern history:  |                |                             |   |                     | £ s. d. |
| Outlines of English history,<br>continued.*                            | Pass ...       | J. A. R. Marriott, M.<br>A. | M. S. 11 ...                                  | M. Jan. 21...       | 2 2 0   |
| The period of Papal supremacy<br>in Europe.*                           | ...do ...      | ...do ...                   | S. 12 ...                                     | S. Jan. 26...       | 1 5 0   |
| English:   |                |                             |   |                     |         |
| Old English grammar, etc., con-<br>tinued (for beginners).             | Honors ...     | Miss Lea ...                | T. S. 10 ...                                  | T. Jan. 22...       | 2 2 0   |
| Old English, Beowulf, continued<br>(advanced).                         | ...do ...      | ...do ...                   | W. 12 ...                                     | W. Jan. 23...       | 1 1 0   |
| Macbeth, Julius Cæsar, The<br>Tempest.*                                | ...do ...      | O. M. Edwards, M. A.        | W. 11 ...                                     | W. Jan. 23...       | 1 5 0   |
| English literature in connection<br>with the history, 1649-1689.*      | ...do ...      | C. H. Firth, M. A.          | F. 12 ...                                     | F. Jan. 25...       | 1 5 0   |
| Gothic: Grammar, etc.  | ...do ...      | Prof. J. Wright, Ph.<br>D.  | F. 11 ...                                     | F. Jan. 25...       | 1 1 0   |
| Latin and Greek:   |                |                             |   |                     |         |
| Grammar  | ...do ...      | Miss Rogers ...             | S. 9.45, 6<br>weeks<br>only.                  | S. Jan. 26...       | 0 16 0  |
| Translations   | ...do ...      | ...do ...                   | Th. 9.45, 6<br>weeks<br>only.                 | Th. Jan. 24...      | 0 16 0  |
| Latin:   |                |                             |   |                     |         |
| Cicero, Pro Murena (prepara-<br>tory).                                 | ...do ...      | F. J. Lys, M. A.            | T. Th. 12...                                  | T. Jan. 22...       | 2 2 0   |
| Latin prose (Class I).   | ...do ...      | ...do ...                   | Th. 11, 6<br>weeks<br>only.                   | Th. Jan. 24...      | 0 16 0  |
| Latin prose (Class II)   | ...do ...      | ...do ...                   | S. 12 ...                                     | S. Jan. 26...       | 1 1 0   |
| Livy, III-V  | ...do ...      | Miss Rogers                 | W. 9.45, S. 11                                | W. Jan. 23...       | 2 2 0   |
| Virgil, Georgics (preparatory)   | ...do ...      | Miss Hayllar                | T. F. 11...                                   | T. Jan. 22...       | 2 2 0   |
| Cicero, Philippics, I, II  | Pass ...       | Miss Sellar                 | T. Th. 4.30                                   | T. Jan. 22...       | 2 2 0   |
| Greek:   |                |                             |   |                     |         |
| Demosthenes, de Corona (pre-<br>paratory).                             | Honors ...     | Miss Rogers                 | M. F. 9.45...                                 | M. Jan. 21...       | 2 0 0   |
| Plato, Republic, III, IV   | ...do ...      | A. Sidgwick, M. A.          | T. Th. 5.30                                   | T. Jan. 22...       | 2 2 0   |
| Greek prose  | ...do ...      | A. E. Haigh, M. A. &c.      | M. To be<br>arranged.                         | M. Jan. 21...       | 1 1 0   |
| French:  |                |                             |   |                     |         |
| French philology, continued...   | ...do ...      | Miss Pope b...              | Th. 12 ...                                    | Th. Jan. 24...      | 1 1 0   |
| French philology and Chanson<br>de Roland (for beginners).             | ...do ...      | ...do b...                  | T. 12, F. 10                                  | T. Jan. 22...       | 2 2 0   |
| Old French books—Roman de<br>Rou, Alexis.                              | ...do ...      | ...do ...                   | M. 12 ...                                     | M. Jan. 21...       | 1 1 0   |
| French literature, Renaissance<br>to Corneille.*                       | ...do ...      | A. E. Cowley, M. A.         | M. 11 ...                                     | M. Jan. 21...       | 1 5 0   |
| Composition (Class I)  | ...do ...      | J. Bué, M. A. c...          | S. 10 ...                                     | S. Jan. 26...       | 1 1 0   |
| Grammar and composition (Class<br>II).                                 | ...do ...      | ...do c...                  | S. 11 ...                                     | S. Jan. 26...       | 1 1 0   |
| Grammar and composition  | Pass ...       | ...do c...                  | T. 11 ...                                     | T. Jan. 22...       | 1 1 0   |
| Outlines of French literature—<br>De Tocqueville, Ancien Ré-<br>gime.* | ...do ...      | Miss A. M. Todd             | Th. 12 ...                                    | Th. Jan. 24...      | 1 1 0   |
| German:  |                |                             |   |                     |         |
| Old High German (beginners)  | Honors ...     | Prof. J. Wright, Ph.<br>D.  | T. Th. 11 ...                                 | T. Jan. 22...       | 2 2 0   |
| Nibelungenlied   | ...do ...      | Miss Wardale, Ph. D.        | T. Th. 10 ...                                 | T. Jan. 22...       | 2 2 0   |
| Middle High German literature.   | ...do ...      | ...do ...                   | W. 10 ...                                     | W. Jan. 23...       | 1 1 0   |
| Literature, Lessing *  | ...do ...      | F. H. Peters, M. A. d.      | M. 6, T. 9...                                 | M. Jan. 21...       | 1 10 0  |
| Composition (Class I)  | ...do ...      | M. Winternitz, Ph. D.       | S. 9 ...                                      | S. Jan. 26...       | 1 1 0   |
| Composition (Class II)   | ...do ...      | ...do ...                   | F. 12 ...                                     | F. Jan. 25...       | 1 1 0   |
| Grammar and composition  | Pass ...       | A. E. Cowley, M. A.         | M. 10 ...                                     | M. Jan. 21...       | 1 1 0   |
| Schiller's Naïve and Sentimen-<br>talische Dichtung.                   | ...do ...      | Miss Pope                   | W. 12 ...                                     | W. Jan. 23...       | 1 1 0   |
| Political economy, continued *   | ...do ...      | L. R. Phelps, M. A.         | T. 12.10...                                   | T. Jan. 22...       | 1 5 0   |
| Logic: Elementary  | ...do ...      | F. W. Spurling, M. A.       | W. 11, F. 4.30                                | W. Jan. 23...       | 2 2 0   |
| Popular lecture; Elizabeth Barrett<br>Browning.*                       | ...do ...      | A. Sidgwick, M. A. e.       | One lec-<br>ture, S.<br>Feb. 2,<br>5.30 p. m. |                     |         |

Students may obtain leave to attend lectures marked \* without doing papers.

a At 4 Norham Gardens.

b At Somerville College.

c At 2 Wellington Square.

d M. at 6, at 12 St. Margaret's road.

e Tickets for Mr. Sidgwick's lecture (1s. each) to be obtained at the office, Clarendon Building.



II.—UNIVERSITY AND COLLEGE LECTURES OPEN TO STUDENTS OF THE  
ASSOCIATION (see B p. 835).

| Subject and term's work.   | Lecturer.  | Time.                | Place.                       | Course be-<br>gins— |
|--|--|----------------------|------------------------------|---------------------|
| <b>Theology:</b>   |  |                      |                              |                     |
| Romans, continued (no fee)...                                    | Prof. W. Sanday, M. A.   | M. W. F. 11.         | The Schools.....             | W. Jan. 23.         |
| Introduction to St. Paul's Epistles.                             | W. Lock, M. A. ....  | T. 12 .....          | Oriel.....                   | T. Jan. 22.         |
| The Doctrine of St. Paul's Epistles.                             | .....do .....  | Alternate T. 4.      | Keble .....                  | T. Jan. 29.         |
| The Doctrine of the Incarnation (continued).                     | R. L. Ottley, M. A. ....   | M. W. F. 11.         | Trinity .....                | W. Jan. 23.         |
| <b>Mathematics:</b>  |  |                      |                              |                     |
| Projective geometry †.....                                       | Prof. W. Esson, M. A. .  | T. Th. 9....         | Merton.....                  | T. Jan. 22.         |
| The construction of curves by projective pencils, continued.†    | .....do .....  | S. 9.....            | .....do .....                | S. Jan. 26.         |
| The constitution of material media, treated mathematically.      | Prof. B. Price, B. E. ...  | T. Th. 12....        | Pembroke.....                | Th. Jan. 24.        |
| The algebra of quantities.....                                   | Prof. E. B. Elliott, M. A.   | T. Th. S. 10.        | Queens.....                  | T. Jan. 22.         |
| General astronomy (see below, "Fees").                           | Prof. H. H. Turner, M. A.  | M. W. 12....         | University ob-<br>servatory. | M. Jan. 28.         |
| Hydrodynamics and problems in mixed mathematics).                | H. T. Gerrans, M. A. a.  | W. F. 11....         | Worcester .....              | W. Jan. 23.         |
| Differential calculus .....                                      | J. W. Russell, M. A. a.  | T. Th. 10....        | Balliol .....                | T. Jan. 22.         |
| Pure geometry (no fee), continued.                               | .....do .....  | S. 10.....           | .....do .....                | S. Jan. 26.         |
| Geometry, maxima and minima, inversions, etc.                    | C. Leudesdorf, M. A. a.  | T. Th. 12....        | Pembroke.....                | T. Jan. 22.         |
| Analytical geometry, continued.                                  | C. H. Sampson, M. A. a.  | T. Th. 11....        | Brasenose.....               | T. Jan. 22.         |
| Physical optics .....  | C. E. Haselfoot, M. A. a   | S. 11.....           | Wadham.....                  | S. Jan. 26.         |
| <b>Physics:</b>  |  |                      |                              |                     |
| Electricity (see below, "Fees")                                  | Prof. R. B. Clifton, M. A.   | T. S. 12....         | Clarendon labo-<br>ratory.   | S. Jan. 26.         |
| Practical instruction (fee £3 for 3 days a week).                | Prof. R. B. Clifton, M. A.; W. R. Davies, B. A.; J. Walker, M. A.; S. A. F. White, M. A. | Daily, 11-4.         | .....do .....                | M. Jan. 21.         |
| Mechanics and physics for the preliminary examination (fee £1).  | S. A. White, M. A. ....  | M. W. F. 10.         | .....do .....                | W. Jan. 23.         |
| The wave surface and some of its properties, continued (fee £1). | J. Walker, M. A. ....  | T. S. 10....         | .....do .....                | S. Jan. 26.         |
| Elementary electricity and magnetism.                            | R. E. Baynes, M. A. ....   | M. W. F. 10.         | Christ Church<br>laboratory. | W. Jan. 23.         |
| Mathematical theory of electricity.                              | .....do .....  | To be ar-<br>ranged. | .....do .....                |                     |
| Elementary sound and heat...                                     | D. H. Nagel, M. A. ....  | T. Th. S. 11.        | Balliol .....                | T. Jan. 22.         |
| Vapor densities: Dissociation.                                   | .....do .....  | F. 5.30 .....        | .....do .....                | F. Jan. 25.         |
| Mechanics and physics (fee £3, including practical work).        | E. S. Graig, M. A. ....  | Daily, 10-5.30.      | Millard labora-<br>tory.     | M. Jan. 21.         |
| <b>Chemistry:</b>  |  |                      |                              |                     |
| Organic chemistry †.....   | Prof. W. Odling, M. A.   | M. W. 10....         | The Museum....               | M. Jan. 28.         |
| Inorganic chemistry for preliminary examination (no fee).        | W. W. Fisher, M. A. ...  | Th. S. 10....        | .....do .....                | Th. Jan. 24.        |
| Organic chemistry, continued (honors, no fee).                   | J. Watts, M. A. ....   | T. F. 10....         | .....do .....                | F. Jan. 25.         |
| Physical chemistry, continued (fee £1).                          | V. H. Veley, M. A. ....  | S. 12.....           | .....do .....                | S. Jan. 26.         |
| Stereo-chemistry, continued (fee £1).                            | J. E. Marsh, M. A. ....  | M. W. 6 .....        | .....do .....                | M. Jan. 28.         |
| Aromatic compounds, continued (fee £1).                          | J. A. Gardner, M. A. ...   | M. W. 12....         | .....do .....                | M. Jan. 28.         |
| Laboratory work (see £3 or £5)                                   | W. W. Fisher, M. A.; J. Watts, M. A.; V. H. Veley, M. A.; J. E. Marsh, M. A.             | Daily, 10-4.         | .....do .....                | M. Jan. 21.         |
| Chemistry for preliminary examination (fee £1).                  | A. G. V. Harcourt, M. A.   | T. Th. S. 10.        | Christ Church<br>laboratory. | T. Jan. 22.         |
| <b>Geology:</b>  |  |                      |                              |                     |
| Physical geology † .....   | Prof. A. H. Green, M. A.   | M. W. F. 5..         | The Museum...                | M. Jan. 21.         |
| Stratigraphical geology † .....                                  | .....do .....  | M. W. F. 9..         | .....do .....                | M. Jan. 21.         |
| Practical work (fee £2 for 3 days; £4 for 6 days).               | .....do .....  | Daily, 10-1.         | .....do .....                | M. Jan. 21.         |

a Fee £1 2s. 6d. for each course.

## II.—UNIVERSITY AND COLLEGE LECTURES OPEN TO STUDENTS OF THE ASSOCIATION (see B p. 835)—Continued.

| Subject and term's work.  | Lecturer.   | Time.           | Place.                    | Course begins— |
|---|---|-----------------|---------------------------|----------------|
| <b>Animal morphology:</b>   |   |                 |                           |                |
| Elementary, the new schedule (lectures and practical daily, fee £4).        | Prof. E. Ray Lankester, M. A.                               | M. W. F. 12.    | The Museum...             | M. Jan. 21.    |
| Advanced courses. Certain groups of the animal kingdom (daily, fee £5).     | W. B. Benham, Hon. M. A.                                    | M. W. F. 9-12   | .....                     | .....          |
| The germ-layer theory   | G. C. Bourne, M. A.   | Th. S. 10....   | The Museum...             | Th. Jan. 24.   |
|   | .....do.....  | To be arranged. | .....                     | .....          |
| The skeleton and teeth of Sauropsida, etc. (fee £1).                        | J. Barclay Thompson, M. A.                                  | T. Th. S. 11.   | The Museum...             | T. Jan. 22.    |
| <b>Zoology:</b>   |   |                 |                           |                |
| Charles Darwin and problems of modern biology, continued.                   | Prof. E. B. Poulton, M. A.                                  | T. 5. 30        | .....do.....              | T. Jan. 29.    |
| <b>Physiology:</b>  |   |                 |                           |                |
| Elementary.....   | J. S. Haldane, Hon. M. A., and M. S. Pembrey, M. A., M. B.  | M. W. 5. 30.    | Physiological laboratory. | W. Jan. 23.    |
| Practical instruction (fee £6, or £4 for 3 days a week. See below, "Fees"). | Prof. J. Burdon-Sanderson, M. A.; J. S. Haldane, Hon. M. A. | Daily           | .....do.....              | T. Jan. 22.    |
| History of physiology.....  | J. S. Haldane, Hon. M. A., and M. S. Pembrey, M. A., M. B.  | S. 12           | .....do.....              | S. Jan. 26.    |
| <b>Botany:</b>  |   |                 |                           |                |
| Advanced course, practical work (fee £5).                                   | Prof. S. H. Vines, M. A.                                    | M. W. F. 12.    | Botanic Garden.           | W. Jan. 23.    |
| Elementary, with practical work (fee £3).                                   | .....do.....  | T. Th. S. 10.   | .....do.....              | T. Jan. 22.    |
| <b>Anthropology:</b>  |   |                 |                           |                |
| Early stages of knowledge (no fee).†  | E. B. Tylor, M. A.  | M. 4.30....     | The Museum...             | M. Jan. 28.    |
| Elements of physical anthropology.  | Prof. A. Thomson, M. A.                                     | W. 4.30....     | .....do.....              | W. Jan. 30.    |
| <b>Philosophy:</b>  |   |                 |                           |                |
| Plato, Republic, V-X.....   | J. Cook Wilson, M. A.                                       | M. W. F. 10.    | Oriel.....                | M. Jan. 21.    |
| Plato, Republic, continued.....   | J. A. Stewart, M. A.  | W. F. 10....    | Christ Church             | W. Jan. 23.    |
| Aristotle, Ethics, IV-VI.....   | H. P. Richards, M. A.                                       | T. Th. S. 10.   | Wadham.....               | T. Jan. 22.    |
| Aristotle, Ethics, IV-VI.....   | L. T. Hobhouse, M. A.                                       | T. Th. S. 10.   | Corpus Christi.           | T. Jan. 22.    |
| Aristotle, Ethics, V-VII.....   | W. H. Hadow, M. A.  | T. Th. S. 10.   | Worcester.....            | T. Jan. 22.    |
| Aristotle, Ethics, I-IV.....  | J. A. Smith, M. A.  | T. Th. S. 10.   | Balliol.....              | T. Jan. 22.    |
| Aristotle, Politics.....  | A. H. Greenidge, M. A.                                      | T. Th. 10....   | Hertford.....             | T. Jan. 22.    |
| Principles of ethics.....   | Master of Balliol.....                                      | W. F. 12....    | Balliol.....              | W. Jan. 23.    |
| Logic, inference (continued) and probability.                               | Prof. J. Cook Wilson, M. A.                                 | T. Th. 12....   | The Schools.....          | T. Jan. 22.    |
| Bacon, Mill, and modern logic.  | J. A. Smith, M. A.  | T. Th. S. 12.   | Balliol.....              | T. Jan. 22.    |
| History of the theory of knowledge (modern).                                | W. H. Fairbrother, M. A.                                    | S. 12.....      | Lincoln.....              | S. Jan. 26.    |
| Logic (continued) (for Mods.).  | W. H. Hadow, M. A.  | M. W. F. 11.    | Worcester.....            | W. Jan. 23.    |
| Logic, inductive (continued).....   | A. Robinson, M. A.  | T. Th. 11....   | New College....           | T. Jan. 22.    |
| Early Greek.....  | C. Cannan, M. A.  | T. Th. S. 11.   | Trinity.....              | T. Jan. 22.    |
| Greek political ideas.....  | H. D. Leigh, M. A.  | M. 12.....      | Corpus Christi.           | M. Jan. 21.    |
| Philosophers.....   | J. A. R. Munro, M. A.                                       | M. 12.....      | Lincoln.....              | M. Jan. 21.    |
| Political philosophy.....   | H. Rashdall, M. A.  | T. Th. 12....   | Balliol.....              | T. Jan. 22.    |
| Psychology, elementary.....   | H. W. B. Joseph, M. A.                                      | M. 12.....      | New College....           | M. Jan. 21.    |
| Green's Moral and Political Philosophy.                                     | W. H. Fairbrother, M. A.                                    | M. 12.....      | Lincoln.....              | M. Jan. 21.    |
| Political Philosophy.....   | W. G. Pogson Smith, M. A.                                   | W. F. 12....    | St. John's.....           | W. Jan. 23.    |
| <b>Ancient history:</b>   |   |                 |                           |                |
| The constitutional history of Athens (no fee).                              | R. W. Macan, M. A.  | T. Th. 11....   | University.....           | T. Jan. 22.    |
| The Anabasis of Arrian.....   | .....do.....  | S. 11.....      | .....do.....              | S. Jan. 26.    |
| Athens and Sparta during the Peloponnesian war.                             | A. H. Greenidge, M. A.                                      | W. F. 11....    | Brasenose.....            | W. Jan. 23.    |
| The Peloponnesian war.....  | E. M. Walker, M. A.   | T. Th. 11....   | Queen's.....              | T. Jan. 22.    |
| The Spartan constitution.....   | J. Wells, M. A.   | S. 11.....      | Wadham.....               | S. Jan. 26.    |
| The Emperor Claudius (no fee).†   | Prof. H. F. Pelham, M. A.                                   | F. 5.....       | Brasenose.....            | F. Jan. 25.    |
| The Roman provinces of the Empire.  | F. J. Haverfield, M. A.                                     | W. F. 11....    | Christ Church..           | W. Jan. 23.    |
| Some problems of Roman history.   | W. W. Fowler, M. A.   | S. 11.....      | Lincoln.....              | S. Jan. 26.    |
| Roman history, from the Gracchi to Sulla.                                   | C. W. C. Oman, M. A.  | Th. 12.....     | All Souls.....            | Th. Jan. 24.   |
| <b>Archæology:</b>  |   |                 |                           |                |
| Early Greek sculpture (for Hon. Mods. students only).                       | Prof. P. Gardner, M. A.                                     | M. W. F. 11.    | Ashmolean Museum.         | W. Jan. 23.    |

II.—UNIVERSITY AND COLLEGE LECTURES OPEN TO STUDENTS OF THE  
ASSOCIATION (see B p. 835)—Continued.

| Subject and term's work.   | Lecturer.                    | Time.          | Place.                | Course be-<br>gins— |
|--|------------------------------|----------------|-----------------------|---------------------|
| Archæology—Continued.  |                              |                |                       |                     |
| Early Greek sculpture (general lecture).†  | Prof. P. Gardner, M. A.      | S. 12.....     | Ashmolean Museum.     | S. Jan. 26.         |
| Roman inscriptions of the Empire.  | F. J. Haverfield, M. A.      | W. 5.45.....   | Christ Church...      | W. Jan. 30.         |
| Modern history:  |                              |                |                       |                     |
| (1) English history—   |                              |                |                       |                     |
| The foreign policy of Great Britain during the French Revolution war, continued. | Prof. Montagu Burrows, M. A. | T. Th. 11 ...  | All Souls.....        | T. Jan. 22.         |
| Early English institutions.†   | Prof. Sir F. Pollock, M. A.  | T. F. 5.....   | .....do .....         | T. Feb. 19.         |
| Stubbs' Select Charters...   | W. H. Hutton, B. D.....      | M. W. F. 10.   | St. John's .....      | W. Jan. 23.         |
| Stubbs' Charters and Documents.  | A. L. Smith, M. A. ....      | M. F. 11 ..... | Balliol .....         | F. Jan. 25.         |
| English history, from 1189.  | D. J. Medley, M. A. ....     | M. W. F. 10.   | Keble .....           | W. Jan. 23.         |
| Constitutional history, from 1307.   | C. G. Robertson, B. A. .     | T. Th. S. 10.  | Exeter.....           | T. Jan. 22.         |
| The authorities for the history of the great rebellion.                          | C. H. Firth, M. A. ....      | F. 5 .....     | Balliol .....         | F. Jan. 25.         |
| English history. Political and constitutional, eighteenth century.               | O. M. Edwards, M. A. .       | T. Th. 10 ...  | Lincoln .....         | T. Jan. 22.         |
| English history. Political and constitutional, from 1600.                        | J. A. R. Marriott, M. A.     | T. S. 9. 15... | Worcester .....       | T. Jan. 22.         |
| English literature, 1660-1715.   | G. N. Richardson, M. A.      | M. W. 6 .....  | Students' Delegation. | W. Jan. 23.         |
| (2) Foreign history—   |                              |                |                       |                     |
| Period I. Frankish history.  | R. L. Poole, M. A. ....      | T. Th. 12 ...  | Balliol .....         | T. Jan. 22.         |
| Period II. The mediæval empire.  | H. A. L. Fisher, M. A. .     | T. Th. 12 ...  | New College ...       | T. Jan. 22.         |
| Period II. French history, Louis VIII, IX.                                       | W. H. Hutton, B. D.....      | W. F. 11.....  | St. John's .....      | W. Jan. 23.         |
| Periods III, IV. Italian history during the fifteenth century.                   | E. Armstrong, M. A. .        | T. S. 12 ..... | Queen's.....          | T. Jan. 22.         |
| Period IV. European history, from 1519.  | A. H. Johnson, M. A. .       | W. F. 9.10 ..  | Merton .....          | W. Jan. 23.         |
| Period IV. The Turks, 1400-1600.   | C. W. C. Oman, M. A. .       | S. 12.....     | All Souls .....       | S. Jan. 26.         |
| Period V. European history, continued.   | G. N. Richardson, M. A.      | T. Th. 12 ...  | Oriel .....           | T. Jan. 22.         |
| Period VI. European history, from 1756.  | A. Hassall, M. A. ....       | M. W. 12 ...   | Christ Church...      | W. Jan. 23.         |
| Special subject, British India.  | G. H. Wakeling, M. A.        | M. W. 9 .....  | Wadham.....           | M. Jan. 21.         |
| Geography:   |                              |                |                       |                     |
| Historical geography. Central and southern Europe.                               | H. J. Mackinder, M. A.       | W. F. 11.....  | The Schools.....      | W. Jan. 23.         |
| Political science and economy:   |                              |                |                       |                     |
| Principles of political economy (J. S. Mill; recent additions to the science).   | Prof. F. Y. Edgeworth, M. A. | W. F. 12.....  | All Souls.....        | F. Jan. 25.         |
| Outlines of English economic history.  | W. A. S. Hewins, M. A.       | T. Th. 10 ...  | All Pembroke...       | Th. Jan. 24.        |
| Political philosophy, mainly English.  | W. G. Pogson Smith, M. A.    | Th. S. 11..... | St. John's .....      | Th. Jan. 24.        |
| Political science .....  | Viscount Cyres, M. A.        | .....          | Christ Church ..      | .....               |
| Paleography:   |                              |                |                       |                     |
| Mediæval.....  | F. Madan, M. A. ....         | T. Th. 5.30..  | Brasenose.....        | Th. Jan. 24.        |
| History of Greek and Latin literature:   |                              |                |                       |                     |
| Homer and the Homeric question.  | A. Sidgwick, M. A. ....      | W. F. 10.....  | Corpus Christi..      | W. Jan. 23.         |
| Aristotle's Poetics.....   | Prof. I. Bywater, M. A.      | T. Th. S. 12.  | Exeter.....           | Th. Jan. 24.        |
| Aristotle, Poetics and History of the Greek drama.                               | W. R. Inge, M. A. ....       | M. F. W. 11.   | Hertford.....         | W. Jan. 23.         |
| Greek books:   |                              |                |                       |                     |
| Æschylus, Eumenides .....  | A. Sidgwick, M. A. ....      | M. 12.....     | Corpus Christi..      | M. Jan. 21.         |
| Demosthenes, Public Orations.  | H. M. Burge, M. A. ....      | T. Th. S. 10.  | University.....       | T. Jan. 22.         |
| Sophocles, Philoetetes .....   | A. Sidgwick, M. A. ....      | W. F. 12.....  | Corpus Christi..      | W. Jan. 23.         |
| Latin books:   |                              |                |                       |                     |
| Cicero, Letters.....   | A. C. Clark, M. A. ....      | T. Th. S. 11.  | Queen's.....          | T. Jan. 22.         |
| Juvenal .....  | S. G. Owen, M. A. ....       | T. Th. S. 12.  | Christ Church ..      | T. Jan. 22.         |
| Tacitus, Annals, I, II.....  | A. E. Haigh, M. A. ....      | T. Th. 11..... | Corpus Christi..      | T. Jan. 22.         |

## II.—UNIVERSITY AND COLLEGE LECTURES OPEN TO STUDENTS OF THE ASSOCIATION (see below, B)—Continued.

| Subject and time's work.  | Lecturer.  | Time.                             | Place.                              | Course be-<br>gins—        |
|---|--|-----------------------------------|-------------------------------------|----------------------------|
| Latin books—Continued.  |  |                                   |                                     |                            |
| Virgil, <i>Ecl.</i> , Georg. ....   | J. U. Powell, M. A. ....                               | T. Th. S. 10.                     | St. John's. ....                    | T. Jan. 22.                |
| Virgil, <i>Æneid</i> , I-VI. ....   | H. F. Fox, M. A. ....                                  | M. W. F. 12.                      | Brasenose. ....                     | W. Jan. 23.                |
| English language:   |  |                                   |                                     |                            |
| Chaucer's life and works (no fee).  | Prof. A. S. Napier, M. A. ....                         | T. 12. ....                       | The Schools. ....                   | T. Jan. 20.                |
| Chaucer's language. ....  | .....do .....  | Th. 12. ....                      | .....do .....                       | Th. Jan. 24.               |
| Old English literature, down to Piers Plowman (no fee).                                 | Prof. J. Earle, M. A. ....                             | W. F. 2.30..                      | Taylor Institution.                 | W. Jan. 23.                |
| Law:  |  |                                   |                                     |                            |
| Roman law, concluded. ....  | H. Duff, B. C. L. ....                                 | M. W. 11. ....                    | All Souls. ....                     | W. Jan. 23.                |
| English law—  |  |                                   |                                     |                            |
| Law of the constitution (no fee).   | Prof. A. V. Dicey, B. C. L. ....                       | T. Th. 10. ....                   | .....do .....                       | T. Jan. 22.                |
| Law of particular contracts (no fee).   | T. Raleigh, B. C. L. ....                              | T. Th. 12. ....                   | .....do .....                       | Th. Jan. 24.               |
| Real property. ....   | G. B. Burnham, B. C. L. ....                           | W. F. 11. ....                    | .....do .....                       | W. Jan. 23.                |
| Jurisprudence—  |  |                                   |                                     |                            |
| Forms and authorities of law (no fee, 8 lectures).                                      | Prof. Sir F. Pollock, M. A. ....                       | T. F. 12. ....                    | .....do .....                       | F. Jan. 25.                |
| Theory of legislation (no fee).   | T. Raleigh, B. C. L. ....                              | M. F. 12. ....                    | Balliol. ....                       | M. Jan. 21.                |
| Juri-prudence, concluded. (Preliminary examination) institutes of Justinian, concluded. | H. Duff, B. C. L. ....<br>G. B. Burnham, B. C. L. .... | T. Th. 11. ....<br>W. F. 12. .... | All Souls. ....<br>University. .... | T. Jan. 22.<br>W. Jan. 23. |
| Indian law; Hindoo law (fee £1).  | Sir W. Markby, D. C. L. ....                           | M. F. 10. ....                    | All Souls. ....                     | F. Jan. 25.                |
| Music:  |  |                                   |                                     |                            |
| Structure in musical composition.†  | W. H. Hadow, M. A., B. Mus. ....                       | T. Feb. 12, 2.30.                 | Sheldonian. ....                    |                            |
| Handel's oratorio, <i>The Messiah</i> , with illustrations.                             | Prof. Sir J. Stainer, M. A., D. Mus. ....              | T. Feb. 19, 2.30.                 | .....do .....                       |                            |
| On the music of the Russian liturgy.†   | W. J. Birkbeck, M. A. ....                             | S. Mar. 2, 2.30.                  | .....do .....                       |                            |
| On madrigals, with illustrations.   | Dr. Varley Roberts. ....                               | W. Mar. 6, 2.30.                  | .....do .....                       |                            |
| Musical form and composition (fee £1 1s.).  | W. H. Hadow, M. A., B. Mus. ....                       | Feb. 5: ....                      | Worcester. ....                     | F. Jan. 25.                |
| Harmony and counterpoint (fee £1 11s. 6d.).   | Dr. Hiffe, M. A. ....                                  | To be arranged.                   | 13 Warneborough road.               |                            |
| Harmony (fee £1 11s. 6d.).  | Dr. Varley Roberts. ....                               | F. 3. ....                        | Magdalen. ....                      | F. Feb. 1.                 |
| Musical dictation (fee £1 11s. 6d.).  | F. C. Woods, M. A. ....                                | To be arranged.                   | Exeter. ....                        |                            |

(A) *Association lectures*.—Examinations: Each course is followed by a terminal examination, which students are expected to attend unless specially exempted.

Students may obtain leave to attend lectures marked \* without being examined. Time and place, etc.: All the courses are given in the lecture rooms, Alfred street, St. Giles'. They are open to all students who have obtained leave to attend through the honorable secretary, Miss Rogers.

(B) *University and college lectures*.—Lectures marked † are public. For the rest, leave must be obtained through the honorable secretary, Miss Rogers, and can in most cases only be given to students who are reading for honors and who have passed the first examination for women. For Professor Napier's and Professor Burrows's lectures leave can be obtained from the professors or through Miss Rogers. (For Mr. Mackinder's lectures, see "Fees.")

N. B.—No students whose names have not been given in to the lady secretary shall be allowed to attend lectures.

*Fees for university and college lectures.*

|   | £ | s. | d. |
|---|---|----|----|
| Professor Turner. ....  | 0 | 5  | 0  |
| Professor Clifton (for those attending the class for the first time).....             | 1 | 0  | 0  |
| Physiology, extra fee for the first term of a course. ....                            | 1 | 0  | 0  |
| Professor Lankester and Professor Vines (for students not doing practical work). .... | 1 | 0  | 0  |
| Mr. Mackinder (for all who are not registered students of the association).....       | 0 | 10 | 0  |
| Mathematical lectures, where not otherwise stated. ....                               | 1 | 2  | 6  |
| Other courses (one day a week). ....  | 0 | 12 | 6  |
| Other courses (two days a week). ....   | 1 | 2  | 6  |
| Other courses (three days a week). ....   | 1 | 12 | 6  |
| Other courses (four days a week). ....  | 2 | 2  | 6  |

All fees, lectures and tutorial, to be paid to Mrs. Poole at the office of the association. N. B.—Any day of the sixth week of term during office hours. Checks to be made payable to Mrs. R. Poole.

Fees, whether for association or college lectures, which amount to more than £5 5s. and less than £6 6s. will be reduced to £5 5s., and where they amount to £6 6s. and over, 1 guinea will be remitted.

Office, Clarendon Building, Oxford, open 11 to 1 every day during term.

The office will be open between 11 a. m. and 1 p. m. from Monday, January 14, till the end of term. All business communications should be addressed there to the honorable secretary, Miss Rogers, who will be at the office on Saturday, January 19, and Monday, January 21, from 11 to 1, and on every other morning in term from 12.15 to 1.



Students must attend personally for entry in the general register between 12.15 and 1 on some day during the first fortnight of term. The written permission of the principal is required before any name can be entered. The registration fee is 5s. annually.

Mrs. Johnson, principal of the home students, will be at home, 8 Merton street, to see students on Saturday morning, January 19, and any morning in the first week of term, between 10 and 11; after the first week, by appointment.

The secretary of the delegacy of local examinations requests that applications for entry forms from a resident student be made, in term time, through the principal of the hall or body to which she belongs. Each entry form must be countersigned by the principal before it is sent in.

*Correspondence system.*—For particulars apply to the honorable secretary, A. E. W. Office, Clarendon Building, Oxford.

*Teachers' training system.*—A system of practical and theoretic instruction has been arranged for those who are going to make teaching a profession. The secretaries are glad to receive the names of any wishing to avail themselves of such instruction. The work includes teaching in a school twice a week for two terms out of the three. The fees are arranged according to the work done. Students must have passed the Oxford first examination for women or some equivalent examination.

A. SIDGWICK,  
A. M. A. H. ROGERS,  
*Honorable Secretaries.*  
E. M. VENABLES,  
*Assistant Secretary.*

Tutorial help and advice to students forms an essential part of the Oxford system of teaching. This can be obtained in any subject required from the tutors of the association, who direct and advise students during their university course. This is the list of association tutors:

#### TUTORS, LECTURERS, AND TEACHERS OF THE ASSOCIATION.

*Literæ humaniores.*—W. H. Hadow, M. A., tutor.

*Latin and Greek languages and literature.*—Miss Rogers, A. E. Haigh, M. A., Miss Sellar, and Miss Hayllar, tutors and lecturers; A. Sidgwick, M. A., and F. J. Lys, M. A., lecturers.

*Mathematics and physics.*—H. T. Gerrans, M. A., tutor and lecturer; Miss Pearson, lecturer.

*Natural science.*—D. H. Nagel, M. A., and Miss Kirkaldy, tutors.

*Modern history.*—J. A. R. Marriott, M. A., tutor and lecturer; Miss Melhuish (B. A., Victoria), G. N. Richardson, M. A., and G. H. Wakeling, M. A., tutors; Mrs. Marriott, teacher.

*English.*—Miss Lea, tutor and lecturer; O. M. Edwards, M. A., lecturer.

*Modern languages.*—Miss Wardale (Ph. D., Zürich), Miss A. M. Todd, and Miss Pope, tutors and lecturers; J. Bué, M. A., J. Wright, M. A., F. H. Peters, M. A., and M. Winternitz (Ph. D., Vienna), lecturers.

These are the regulations concerning tutors of the Association for the Education of Women:

1. Every student reading for an honor or pass school shall be assigned to a tutor on commencing her work, and remain under his or her general advice and direction until her examination.

2. The appointment of tutors or other teachers to take tutorial control shall be made by the association council, on the recommendation of the educational committee. The assignment of students to tutors shall be made by the educational committee; and a change of tutor shall only be made at the end of a term.

3. Tutors shall be consulted about the preparation of the terminal lecture list. They shall also advise as to the choice of their pupils' lectures, and the selection of teachers in subjects in which they do not teach themselves. No student shall be admitted to any association class or lecture (except such as are asterisked on the list) without the recommendation of one of the tutors in the school for which the lecture is provided. No change in a student's work shall be made without the knowledge of her tutor.

4. Tutors' recommendations as to individual students' work shall be communicated to the educational committee through the principals. Arrangements as to tutors and lecturers shall be made through the lady secretary.

5. Tutors shall, at the end of each term, send a report to the lady secretary, who shall forward it at once to the students' principal. Tutors shall be entitled to see all lecturers' and teachers' reports on their pupils before sending in their own.

6. A tutor who is responsible for a student's honor work, but is not actually teaching her, shall be entitled to receive a fee of 10s. per term.

In the case of the association lectures, weekly essays or compositions form part of the work.

#### VI. POSITION OF WOMEN.

The position of women in the University of Oxford can scarcely be called precarious, since the social relations are so thoroughly established, and the intercommunication of officers of the board that provides for women's examinations and the officers of the university is so complete; yet, on the other hand, it is a friendly rather than a formal relation. All the formal recognition given to women students by the university is this:

(1) The hebdomadal council of the university appoints one member of the council of the Association for Education of Women.

(2) The same body appoints one member on the council of Somerville College.

(3) The authorities have given a room in the university official buildings for the office of the association.

Otherwise the university has no official knowledge of the existence of the women.

Men students are subject to certain regulations. They matriculate, reside for a certain number of terms, attend certain lectures, take examinations in a certain order, receive degrees, and enjoy certain privileges as graduate members of the university. None of these arrangements are enforced for women by the university. All it does is to grant power to the delegacy of local examinations to use the university examinations in examining women. This is the legal fiction, but the result is that women may take any examination provided by the university for men. Their names are placed in a class list arranged exactly like that of the men, and their position in that list as compared with the men can be seen at a glance. In fact, this list is published in the University Calendar after that of the men, and also, by statute, in the University Gazette.

As regards residence, the university lays down no rule for women, and the delegacy does not inquire into the matter. Consequently, women may reside for a short or a long period, or, if they prefer it, not at all. On one occasion two ladies from Cambridge, who had won first classes in the mathematical tripos (Part I), wishing to test the standard of the Oxford final schools, which represent four years of study, as compared with that of the tripos, Part I (which represents three years), went to Oxford almost directly after their Cambridge examination, entered the honor schools, and obtained, respectively, a first and second class.

Students who belong to one of the halls and registered home students

reside for terms which are the same as those kept by members of the university, but they are not obliged to take the examinations at certain fixed intervals. All that the delegacy expects is certain specified preliminary examinations in two languages and elementary mathematics; those who are graduates of colleges included in the Association of Collegiate Alumnae, United States of America, are admitted without further conditions to the honor examinations. Women are allowed a larger choice of preliminary examinations than men, and they may, if they please, proceed at once to the final honor schools (senior public examination), entirely omitting moderations (the first public examination), or they may spend all their time working for moderations only. This plan has its advantages in regard to its greater freedom, but as long as it continues a woman will not obtain the same prestige as a man for her work, but will be regarded as having slipped in by a back door, leaving out some essential part of the work. There is much to be said on both sides; many people in Oxford value the freedom, while others consider the existing state of things a serious obstacle in the way of recognition by the university.

As regards lectures, tutorial help, etc., women have little or nothing to desire.

The university grants women neither degrees nor certificates. The delegacy, however, grants a certificate, and in the case of the honor schools the class obtained is indicated.

As women do not graduate, they have no recognition from the university when their time of study is ended. However, their position as student members of the association helps to keep up their interest in Oxford, and gives them a vote on important matters relating to the education of women.

That the present state of things is thoroughly satisfactory no one would probably maintain. There is a strong feeling growing up in favor of asking something more from the university. Before that can be done it will probably be necessary to introduce a little more method in the women's courses, order of examinations, etc. What the next step will be it is impossible as yet to say, for the matter is just now under discussion. The degree is now granted to women by London, Victoria, Wales, and all the Scotch universities, and the Royal University of Ireland, as well as by the colonial universities. Women have already been hampered in attempts to obtain positions in the colonies (and sometimes even in England) by lack of the degree. What is needed now is to bring home to the old universities the fact that women do suffer from their disabilities, and sooner or later they too will yield the right to wear the title as generously as they have given the substantial benefit of teaching and examination.

The reasons why a strong feeling has been growing up among the friends of women's education at Oxford that the present state of things was unsatisfactory are (1) because of the want of any fixed curriculum,

which tended to encourage scrappy and unsystematic work; (2) because the women who had gone through the full course did not obtain any adequate acknowledgment in the form of recognition and a degree. In consequence, the Association for the Education of Women in Oxford called a meeting in the new schools on May 4, 1895, at which the following resolutions were carried:

(1) That it is desirable that women students who have complied with the conditions as regards residence and examination should be admitted to the B. A. degree, and that a university diploma recording their residence and qualifications should be granted to women students who have resided at least three years, have passed a preliminary and an intermediate examination, and have obtained a class in any honor examination recognized by the university.

Carried by 115 to 26.

(2) That this meeting approves of application being now made to the university for the admission of duly qualified women to the B. A. degree.

Carried by 85 to 3.

As a result of these resolutions, a petition embodying the demands of resolution (1) was circulated among members of congregation (which is composed of M. A.'s resident at Oxford). In order fully to ascertain public opinion, the wording was as follows:

We, the undersigned members of congregation, respectfully petition the hebdomadal council to bring before the university some scheme whereby resident women students may receive due recognition.

I. By conferring upon those women students who have complied with all the conditions (of residence and examination) required of men for the B. A. degree, either (a) the B. A. degree, or (b) a university diploma stating their residence and qualifications, and that they have fulfilled the above conditions; and

II. By the grant of a university diploma or certificate, stating their residence and qualifications, to those women students who have resided at least three years, have passed a preliminary and an intermediate examination, and have obtained a class in any honor examination recognized in the university.

I (a) received 123 signatures; I (b), 24.

As a result of the petition, the hebdomadal council appointed a committee to go into the whole matter. This committee decided to take the evidence of experts on the following points:

(1) Whether the exclusion from the B. A. degree has been found to injure the professional prospects of women engaged in education; instances within experience of witness to be specified.

(2) Whether the admission of women to the B. A. degree would be likely, and if so, in what way, to injuriously affect the education of women.

Under these headings evidence is now being collected, and will be received by the committee in October. After hearing evidence, it is probable that the committee will report to the hebdomadal council, and, should the report be favorable, the council will probably take further steps in the matter.

It is worth noting that among those who signed I (a) of the petition are the master of Baliol, the principal of Brasenose, the principal of Jesus, Professors Burden, Sanderson, Wilson, Dicey, Elliott, Green,



Teggs, Müller, Poulter, Wallace, Wernghe, and York Powell, besides many other influential members of the university.

Such is the status quo in September, 1895.

#### VII. SOMERVILLE COLLEGE.

Somerville College and Lady Margaret Hall were opened on the same day, but as Somerville is the larger of the two it may appropriately be considered first. It was named, as need not be said, from Mrs. Mary Somerville, who was so great an honor to her sex, and who was the source of actual contributions to science. A copy of Flaxman's bust of her adorns the hall of each building, and it is proudly related that she was not only the first woman admitted to the Royal Society but also that she was an excellent housekeeper and fine needlewoman.

Somerville was originally started as a hall of residence. It was, however, incorporated as a college, and in 1894 assumed this title, with a view to improving its educational status.

The situation of the grounds chosen for this hall is convenient. Moving from Carfax, the intersection of the two main streets of the city, to the north, not more than a five-minutes walk leads one to the unpretentious gateway, which must be known in order to discover it, for no one would suspect that beyond its modest arch lies the avenue leading to the beautiful grounds of Somerville. The buildings are placed in a garden covering more than 3 acres, which is delightfully wooded and with plenty of room for tennis grounds and other amusements, and full of quiet retreats in which the student may seek for solitary studying hours or where groups of them may entertain their friends in cosy outdoor afternoon teas. The buildings consist of the old hall, originally a large dwelling house, with additions and the West buildings, which were put up several years after the original building was first opened. The new parts are in the Jacobian style, and each of the buildings is complete in itself, with its own dining and drawing rooms, library and offices, so that there are really two centers of home life in the place. There are also several cottages opening upon the grounds, which are used for the accommodation of students, the young ladies living in them going to one of the other buildings for their meals and for their social relations. About 65 students can be accommodated in the whole place, but as this number is divided into two home centers, many of the evils resulting in the conditions incident to life in large and crowded halls are much lessened, if they are not completely done away with.

The drawing-room in the old hall is a large and comfortable room, with a delightful aspect upon the garden, and with a large window door from which one steps directly upon the lawn. The ever-present fireplace is an attractive feature, comfortable sleepy-hollow chairs inviting to its warmth in winter. The walls are lined with beautiful pictures, Watts and Burne-Jones, according to the fashion of the time,

being represented; and some beautiful gifts by Mr. Ruskin are also among the number. A series of beautiful photographs of those Italian ladies that were lecturers and "dottorette" in the Italian university appropriately adorn one side of the room. A large portrait of the first principal of the hall hangs over the fireplace.

The library is on the second floor. It contains about 3,000 volumes, and is a sort of common room for the students, containing magazines and the newspapers, which the English girl does not fail daily to read. Upon the wall, near the door of this room, is the bulletin board, covered thickly with notices of the various meetings and clubs which the students keep up and attend. A special building is to be provided for the library as soon as possible.

The rooms of the young ladies are here, as in all the Oxford women's colleges, a sort of half study, half boudoir. The furniture provided by the hall consists of a single bed, which may be converted by artistic coverings into a couch by day; a study desk and bookcase, commode and screen, with several comfortable chairs; but each student adds to this simple outfit a large number of additions and touches, which convert the room into something that shall represent her own individuality. She may carry out in fancy what she pleases, from the severest simplicity to the wildest exuberance of draperies, flowers, and pictures. Watts's Hope and Rossetti's Beata Beatrix and Sancta Lillias will there be found in many repetitions, and the corner where the books are piled will have above it a pair of tennis racquets crossed. A pair of screens gives the drawing-room effect to the chamber by day, and upon the low table are the delicate china cups which are to serve when the afternoon tea or the 10 o'clock cocoa is the order of the day or evening.

The principal of the hall is a woman of great energy, tact, and administrative capacity, one whose enthusiasm is felt by all who come under her influence. She has large ambitions for the hall, and through her efforts it has greatly increased in numbers and in gifts that have been brought to its library and its fund for scholarships. While encouraging scholarship in all possible ways, she is laudably careful for the physical health of the young women under her care, and takes the deepest interest in all matters that will be for their personal welfare.

There are three ladies residing in the halls who act as tutors to the students, and there are four other nonresident tutors. No lectures, however, are given in the halls; all the students go for lectures either to the association hall or to the different colleges in which the lectures are given, accompanied always by an approved chaperone.

Somerville College is already old enough to boast of the honors that have been gained by its inmates, and it is interesting to see in each yearly report an account given not only of the honors that have been received in their examinations in Oxford but of the positions that they have gained as head mistresses or lecturers in other institutions. There is no doubt also that the alumnae look back to the hall in which they lived

and studied with very much the same sentiment that American students regard their alma mater.

Somerville Hall is strictly undenominational in principle, and the report declares that care is taken in its management to place members of different religious denominations on the same footing. Prayers are read daily in the hall, but students are not required to attend. The students are, however, expected to attend on Sundays a place of worship chosen by themselves or their parents, and to inform the principal what place of worship they choose for regular attendance; but this rule is one to which exception would be allowed.

It is to be feared that the American students coming to this or any other of the English colleges or college halls will find the particular rules given for their guidance in regard to conduct somewhat restrictive. These rules pertain to matters which an American young lady is supposed to take care of herself without special directions. Certainly nothing is mentioned which the instinct of a lady will not suggest as in the main proper and best to do, and when one realizes the care that is exercised in the best English homes over the comings in and goings out of daughters, one sees that these directions laid down for college women can not be considered revolutionary or even unusual. The English students themselves do not find them troublesome in the least; in fact, many of them have more liberty in the college life than they had at home. Some of the rules that are distinctly named are as follows:

No student is to be out after sunset without leave. Invitations from friends may not be accepted without consulting the principal. Students must be in their own rooms by 11 p. m. Evening engagements should not be made more than once a week. Students may not invite gentlemen to their own rooms nor receive them there if they come. Students may not accept invitations to the rooms of members of the university or enter any such rooms except under special circumstances and with the sanction of the principal.

It is not to be supposed from these last two restrictions that there would be any great danger of their infraction or that they have been made in order to interfere with a growing custom. It has, however, long been an established university form for college men to have always a parlor in their suite of rooms, in which it is considered proper for them to entertain ladies at lunches or afternoon teas; but it would hardly seem necessary to suggest that young ladies should not go to entertainments of this sort unless accompanied by elderly ladies. It is required that the chaperone who accompanies ladies on any of these occasions shall be one whom the principal herself knows, or whom the student's mother knows, and the gentleman whose room is visited must be one known by the parents of the young ladies themselves. This is an absolute law, that if calls by gentlemen are received at the hall, the card is sent to Miss Maitland, and the drawing-room is the



place where the guest is entertained. It can not be said that there is a rule against the reception of more than one call in the term from the same gentleman, but the principal's sententious answer to the question on this point was, "It does not happen." There are various unwritten rules: Young ladies may not walk on the towing path; they may not go into college gardens; when going to lectures or to the shops two young ladies shall go together; they may not go to the Camera after dinner or to week-day college chapels unless special permission is obtained from the principal. To the rule that they may not go to college or other dances there is absolutely no exception. These particulars are given in order to show the amount and kind of care that is exercised over the conduct of young women, and to which English girls can not be said to make objection. It has also been said that American women do not find, when they come to English colleges, that they are very much inconvenienced, under the circumstances, by the rules of the institutions.

The general impression which a company of English women makes is that of physical vigor. There are of course exceptions, but in the main the English habit of activity in pedestrianism seems to have brought about its legitimate result. It is an understood thing that the time from lunch to afternoon tea shall be spent in games or other outdoor exercise, and the days are very few in the whole English year when it would be impossible on account of the weather to take a long walk. The vicinity of Oxford could not be surpassed in convenience for this method of increasing physical vigor; the roads are excellent, and the scenery, while always quiet, is sufficiently attractive to prevent any walk from being dull. For the rare days when it is impossible to go out, a small gymnasium is provided, which is, however, sufficient for the number of those that use it. It is provided with appliances for all kinds of exercise, including fencing, and a sergeant acts as instructor.

It must be admitted, however, that the application of the latest and best science to the needs of young women has not here progressed very far.

The students have also a boat on the Cherwell, and are required to pass a swimming test of 50 feet before using it. Nearly all of the young ladies at Somerville have passed this test.

The daily routine will not vary much in the different halls. Prayers are read at 8 o'clock, and breakfast may be taken from 8.10 to 9. The time from 9 to 1 is spent usually at work, and the devotion of the students to work hours is something to be noted. The students during this time are either in their rooms studying, or attending lectures in the various colleges or the association rooms, or at the Bodleian Library. Between 1 and 2 lunch may be obtained; this is a very informal meal. From 2 o'clock till afternoon tea, boating, tennis, and other games are the order; from 4 to 5 tea is to be had in the drawing-room, and 5 to 7



is considered again a work hour. At dinner students are expected to be punctual, and evening dress is en règle.

The evening may be spent in study, but this is also the time for the various kinds of entertainments which the students get up. They are concerts, private theatricals and charades, and the meetings of the various societies. At the Browning Society, the Shakespeare Society, the Scientific and Philosophic Society, papers are presented and discussed on subjects whose general character may be indicated by the names of the associations. The Mermaid Society, named from the famous tavern, is organized for the study of general literature. There are also various meetings connected with philanthropic missions in which the students are interested. One of these is the university settlement in Southwark, London, which is supported by the college women of Oxford and Cambridge together. Another is a mission in the Transvaal, for which a former Somerville student has aroused their sympathy. The Knitting Society which made hand-knit jerseys for North Sea fishermen is now extinct, but no one can calculate when either it or another of the same fanciful sort may break out. But perhaps most important of all is the Debating Society. In this society the students of Somerville and Lady Margaret halls unite their efforts. The meetings are held alternately at Somerville and Lady Margaret, and it must be said that no subject is too wide or too deep for it to handle; the laws of science and the policy of great statesmen come in for their share of discussion. All the political questions of the time are settled and decided in these debates; and the more paradoxical the expression of the question, the more interesting the debate, the main object being to provoke discussion. The "honorable proposer" opens by a written address; the "honorable opposer" follows with a written response. All members of the society are then permitted and urged to take part in the more or less exciting discussion. The vote is taken not on the merits of the debate but on the merits of the question. The greatest interest is felt in the Debating Society, and it has been proposed that the Debating Society of the women's colleges at Cambridge should unite with the Debating Society of Oxford in an interuniversity debate. In fact, a beginning has been made in this direction and will no doubt be carried out, to the great increase of interest in this admirable method of culture.

The dates of terms at Somerville correspond with the university terms.

The students are not admitted under the age of 17, and in case the responsions or some equivalent examination has not been passed a special examination will be required by the principal, in order to show whether the candidate is qualified to profit by the course of study proposed. This examination is upon algebra or Euclid and any two languages of the following: Latin, Greek, French (or Italian), and German. The papers are sent to the candidate and done at her home "upon honor."

A letter of introduction and recommendation from some person who knows about the courses of study that have been pursued by the candidate will, however, in many cases be sufficient. References are always required, and special pains are taken at the hall in regard to the reception of persons that have been in houses where there has been any infectious disease within the preceding month. The card of application for admission calls for the name of the candidate in full; the name, address, and profession of the parent or guardian; date of birth; the church desired; statement in regard to health; account of previous education, giving the name and address of the principal of the school last attended; the amount of examinations that have been passed, and the names and addresses of two referees, of whom one shall be a lady; the name of the former schoolmistress, or of the clergyman in the town where the candidate has lived, or of some other person of recognized position, will be accepted as referee.

Inclusive fees are charged for board, lodging, tuition, and lectures. These are £28 12s. 4d. a term, to be paid in advance; for rooms in the wing and West buildings an extra charge of £2 2s. is made. Cottage rooms are £26 a term. Students are expected to give three months' notice before leaving. Failing this, they are liable to be charged for the ensuing term, subject to the discretion of the principal.

There are, of course, various small expenses connected with the different associations with which the students are connected, but most of them are optional. Then there is laundry, which would not amount to more than 2s. (50 cents) a week, and, of course, there are the students' own books to be bought. If friends are invited to dinner there is a charge of 2s. 6d. and for lunch 1s. 6d.

There are a certain number of scholarships offered by the college; three of the annual value of £50 and tenable for three years, given by the Clothworkers' Company. There is also a Pfeifer scholarship (£50 a year) and a Pfeifer exhibition, and a St. Mary Conybeare scholarship (£50) for classics.

#### VIII. LADY MARGARET HALL.

In the year 1879 it was decided to establish a second hall for women, which should have the special object of providing a home for the daughters of people who were connected with the Church of England. The proposed hall was announced as "an academical house of the members of the Church of England (with provision for the liberty of members of other religious bodies), which should secure to students the advantages of a common life with the ways and tone of a Christian family; the production of certain rules as to hours established, etc., general supervision of students, definite religious instruction, the advice and assistance of a lady of experience and other high qualifications acting as lady principal."

A house was taken in Norham Gardens, a street in the new part of Oxford, where a constant succession of beautiful villas, embowered in

greenery and surrounded by gardens, lines the graceful winding streets. Lady Margaret Hall may be a fifteen-minutes walk from Carfax; it is in the outskirts of the city, and the view from the upper windows looks out over the fields and meadows leading down to the Cherwell. The house does not differ in its appearance from the suburban residences that surround it. It stands close to the street, but a beautiful garden of moderate size at the back affords room for a tennis court or two. Across the street from the hall is a second house which is really a part of the hall, and which is called Wordsworth Hostel. The hostel is named from Miss Wordsworth, the principal of the hall, and the hall itself is named from Margaret Tudor, Countess of Richmond. A cast of her recumbent figure on the beautiful tomb in Westminster Abbey has been placed in the chapel of the hall. The dwelling house which was taken in the first place for the hall was increased by the addition of several rooms and a small chapel. The chapel is a small room, but it has received various rich decorations as gifts from friends of the hall. A valuable and interesting thirteenth-century picture ascribed to Gaddo Gaddi has been placed over the altar. Some gifts of candlesticks and vases, altar linen, and other appropriate furnishings, together with the marble pavement and beautiful windows of stained glass, not by any means forgetting the cast of the namesake of the hall, which lies to the left of the altar, give to some extent the appropriate effect for a chapel and tone down the newness of the general appearance.

The drawing-room at the hall is a beautiful apartment, whose windows look out upon the lawn at the back. Its walls are lined with pictures, and the air of the room is that of comfort and elegance. All that has been said of the rooms of the students at Somerville may be repeated for this hall also, but as Lady Margaret is a smaller place, only about twenty persons being accommodated within the hall itself, it is easier to give the freedom of a home to its inmates than where larger numbers are congregated. It is the special aim of the principal that Lady Margaret should have the air of a home. At present the total number of students accommodated is 38, but fresh accommodations for students, etc., dining hall, and library are contemplated.

Miss Wordsworth is the daughter of the late Dr. Wordsworth, Bishop of Lincoln, a lady known for her literary ability and scholarship as well as for her social charm. The brightness and grace that she introduces into the conversation whenever she joins the group are always welcomed, and her friends say that she always carries the conversation to a higher plane as soon as she enters. Of a deeply religious nature, it must be that her life and character make a deep impression upon the young women who are under her influence. She herself reads the prayers at the night and morning chapel and conducts the classes which are held weekly in religious knowledge, and which all the students in the hall attend. The subject for these classes and Bible study changes from year to year. One year they were in the Gospel of St. Mark, another



on the Decalogue and the Book of Joshua, and the next on St. Luke's Gospel. The statement in the house rules that students are expected to be at prayers morning and evening and to attend divine service at least once on Sundays has the force of a command; and the Holy Communion is celebrated in the chapel of the hall once a term. Lenten addresses are given there also, and courses of lectures by various reverend gentlemen are given in the association rooms, which the students have the advantage of attending. Through all these means which are placed at the command of the students by the principal and by the officers of government for the hall, it is hoped to give a cast to the life in this hall which shall be specially felt by those who are members of the Church of England, and it is the desire of the principal that a high tone of character may be the result in the students.

In regard to the discipline of the house and the daily routine of life, there are not many differences between Lady Margaret and Somerville. If possible, the students are thrown upon their own responsibility a trifle less at Lady Margaret. Some rules which are left to the power of tradition only at Somerville are distinctly expressed at Lady Margaret. Students are expected to be in their rooms for the night at half past 10, nor should they visit each other's rooms before 1 p. m. The rules about going two and two and about walking on the towing path, or in college gardens, or going to week-day college chapels, are definitely expressed. Visitors other than fathers, uncles, and brothers may be received on Monday afternoons only between 4 and 6. No student may accept invitations from gentlemen unknown by her parents, or from residents unknown to her parents or the lady principal.

Besides the lawn-tennis court and the two boats on the Cherwell, which may be used by students who have passed the swimming test, there is a small gymnasium. No student may use the boats, however, without leave from her parent or guardian, and special permission must always be obtained from the principal.

The dates for the terms at Lady Margaret Hall correspond with those of the university, and the conditions of admission are the same as at Somerville. Each student has a room to herself, as at Somerville, which is fitted to serve as sitting room and bedroom. The charges are £75 a year for each student, exclusive of expenses strictly personal. There are the usual number of societies and other miscellaneous matters that call upon the student for slight fees; an estimate of about 10s. a term, with 2s. a week for laundry expenses, would be fair.

The fees for instruction are paid to the association, and will not exceed as a general thing £8 a term. As these are not included in the £75, residence here is considerably dearer than at Somerville. In case of sisters or other ladies willing to share the same room, £65 a year would be the price for each. Three months' notice before leaving is required. There are various scholarships, information in regard to which may be obtained by addressing the principal. They vary in amount from £50 to £25. The scholarship examination is held at the hall each June.



## IX. ST. HUGH'S HALL.

Another hall, charmingly situated at 17 Norham Gardens, in the near vicinity of Lady Margaret Hall, has also been established. It has been in existence for eight years, and has been designed specially for young ladies who wish to gain the advantages of university education on an inexpensive scale. The name of St. Hugh was given to the hall in memory of the great Bishop of Lincoln, of whose diocese Oxford formed a part, and who is said to have had a remarkable reverence for women. A window in St. Giles' Church bears his name, and his figure, with that of his favorite swan, is to be seen on the northeast pinnacle of the spire of St. Mary's. The idea of this hall suggested itself to Miss Wordsworth, the principal of Lady Margaret, in consequence of her receiving applications from many students, notably the daughters of the clergy, who could not afford the fees paid at Lady Margaret Hall, but who it was thought would be content with a less luxurious rate of living in order to share the same educational privileges. The economy appears in the arrangement of rooms. Two students are expected to share a bedroom, which is divided by screens, and which it is not expected will require heat; the bedroom fire is considered an extra. The students have a large study room, charmingly situated, with an outlook upon the tennis ground and the woods beyond, and in this room each student has a desk to herself, where she keeps her own books and papers and at which she sits for study. Silence is positively required in this room, and nothing can be more cheery than the well-lighted and comfortable apartment. St. Hugh's Hall is now being enlarged, and in October, 1892, there will be room for 24 students. There will be 8 rooms which are "share" rooms, and there will also be 14 single bedrooms and 2 small single rooms. The price for the share bedrooms is £45 a year for each person, including board, and the occupants will be expected to work in the study. The price for the single rooms is £65 a year, and this includes two scuttlefuls of coal, which is considered a sufficient quantity. For a small single room the price is £55 a year. The students are requested to bring sheets, towels, pillowcases, toilet soap, etc.

St. Hugh's Hall is, like Lady Margaret Hall, intended primarily for the benefit of members of the Church of England; the religious teaching is on the same lines as that at Lady Margaret Hall. A tiny chapel is provided, and the service of the Church of England is used. Members of other religious bodies, however, are not debarred from admission. The rates mentioned above do not, of course, include the lecture fees, which vary from £15 to £24 a year, and are payable to the General Association for Women's Education. In case any students have not passed the Oxford first examination for women, an equivalent examination is provided which they are required to pass in order to be admitted. This need not be detailed, for the studies here, in all things connected with lectures, are on exactly the same footing as those at Somerville

and at Lady Margaret Hall. Good references are required and a student is expected to remain no less than a year. All students who can swim 50 feet are allowed the use of the St. Hugh's boat on the Cherwell.

St. Hugh's is under the supervision of Miss C. E. A. Moberly, a charming and cultivated lady, whose grace of manner and interest in her charge peculiarly fit her for the responsible post which she holds. She can be addressed at St. Hugh's Hall, 17 Norham Gardens, or in the vacation at The Parsonage, Sydenham, London, SE.

#### REGISTERED HOME STUDENTS.

Students who wish to work in connection with the association and yet not to reside at one of the halls may be registered as "home students." A special committee has been appointed take charge of them, the principal being Mrs. A. H. Johnson (8 Merton street, Oxford). Certain regulations are laid down with regard to their work. These are:

1. Students wishing to attend lectures not open to the public must send in their applications on the prescribed forms, duly signed, to the lady secretary of the Association for the Education of Women.

2. Students should consult the principal before arranging for tutorial assistance.

3. Students must pay their fees direct to the treasurer of the Association for the Education of Women.

Students, unless residing with parents or guardians, must obtain leave from the principal to reside in other houses approved by the committee, and are required to conform to certain rules.

Students of a hall who wish to leave the hall, but to continue to reside in Oxford as students of the Association for the Education of Women, and home students who wish to enter a hall must obtain permission from the authorities of the hall and from the home students' committee.

#### X. THE LIBRARIES.

If there were nothing else in Oxford to make it worth while for a student to go there, the Bodleian would still be an attraction amply sufficient to make pilgrimages to it as a worthy shrine interesting. The collection of buildings of which the Bodleian and the Radcliffe library buildings form a part is one of the most attractive in the world, not because of their architectural beauty alone, but because of their endless historic associations and the graceful variety in their arrangement and proportions. Entering the inclosure of the Divinity Schools from the arched passage in the center of the Clarendon Building, one feels in the very atmosphere of the Middle Ages. The inscriptions over the doorways which lead out from this square record the divisions of subjects of study which were used in the days when Aristotle was, if possible, even more the ruler of the philosophical disputations than he is now. One might, in fact, believe that if there were wild boars roaming in the forests of Oxfordshire at the present day (if, indeed, there were any forests left for them to roam in), the wandering student, out in search of philosophic seclusion, might still be found, "Ethics" in hand, to drive his book down the throat of the beast in case of an attack.

Literæ Humaniores is rightly named the "Greats" in the slang of the university town, for while there are but 12 courses of lectures offered in mathematics, there are 124 more or less closely related with the classics, and the explanation of those cabalistic inscriptions over the doors in this ancient quadrangle will perhaps also make clear why the University of Oxford still considers classical history and classical philosophy as the "more human" instruction. Under the low doorway which is marked "*Schola vetus Medicinæ*" one enters a winding staircase that leads to the Bodleian proper, but the room where most of the reading and studying is done is further beyond the square of the Divinity Schools, in the "Camera," or Radcliffe Building. The open space in which this noble building stands has toward the east the beautiful façade of All Souls, with its many delicate turrets; beyond, toward the south, is the church of St. Mary's, the university church; and toward the west is Brasenose College, the back of the gardens of Exeter, with the far-spreading branches of Bishop Heber's beloved horse-chestnut tree extending over the wall and casting a deep shade upon the square. The Radcliffe Library, which is now called the "Camera Bodleiana," is a beautiful octagon in its ground plan; above this it is cylindrical, with Corinthian columns about it, and is crowned with a majestic dome, beneath which is the reading room. The lower part of the building is filled with books, chiefly those that have been published since 1850. The Camera or reading room itself is reached by a long winding flight of stone steps. It would be hardly possible to imagine a more delightful place for study. The lighting is excellent and the room is always absolutely quiet. In the center of the room is a table on which are placed the very latest books, such as have not yet been catalogued, and several other circular reading tables, on which are the last received numbers of many leading periodicals, both English and foreign. Large cases hold the books which contain the catalogue; other cases contain several thousand selected books, carefully chosen and continually kept up to date, which may be taken without applying to the librarian and used in that room. These are the books which are most used, and are always kept conveniently at hand. Books may be brought between 10 o'clock in the morning and 10 at night to this room from the rooms below by the clerks, or between 10 in the morning and 5 in the afternoon from the Bodleian itself, on application through a card, copies of which are found upon the tables. The book when drawn may be retained in the reserved shelves for a week under the name of the student, but no books are ever taken away from the library. In the compartments around the sides of the room are desks and tables conveniently arranged and supplied with pens and ink and paper. These study compartments are well lighted and comfortable. There is also a gallery to which books for immediate use are taken for the use of students in special subjects.

But if the Camera is a delightful place for study, the reading cells



and cages in which the students sit in the Bodleian Library itself may be called the very home and retreat of scholastic research. Every thought of busy and strenuous life seems to retire far hence when one comes into the deep hush and classic shade of this room. Entering again by a long staircase, one finds a narrow room surrounded by book-cases, and with cases in the center containing the prodigious volumes of the catalogue, and where also stand a great many glass-covered compartments in which rare and treasured works are shown. Crossing from this room to another, similarly formed, is a long hall, leading from which, upon either side, are many book-lined reading stalls filled with comfortable desks and chairs provided with appliances for writing. To these places are brought the volumes of texts or other valuable works which are the object of study, and they may be left, with the name of the reader, for a week or longer. The light comes in through gothic windows; the ceiling is covered with armorial decorations; pictures of ancient worthies are hung about the walls, and the whole atmosphere is filled with the associations of ancient days.

The catalogue of the library, a copy of which is kept at the Camera and at the Bodleian also, consists of a large number of books of immense size and of great weight, upon whose heavy leaves are pasted tissue slips containing the name, author, and mark of each book. It is an authors catalogue; but a subject catalogue is in process of preparation, and an arrangement of departments has been begun upon a system approaching the well-known decimal system. The work is in embryo as yet, and proceeds very slowly, since it consists of a mere rearrangement of the tissue slips that are used for the authors catalogue. The idea seems not to have much more than dawned on the Old World that the tremendous increase in usefulness of a library with a thorough subject catalogue based on an expansible decimal system that touches and includes all the departments of human knowledge, that has been written on stiff cards easily handled and placed in drawers as high as the average height of a human being, amply repays the labors of some scores of trained cataloguers for a term of years. But the subject catalogue, as far as it does go, is of course exceedingly useful. Readers desiring to consult any section of the catalogue may do so by filling in a special printed slip and handing it to the librarian. At the Bodleian for some of the special collections there are also special catalogues, and there are also some classified hand lists. A catalogue of the 27,000 volumes of manuscripts in the library has been begun, and thirteen parts of it have been published.

In the use of the library much depends upon the spirit with which the application of the student for information may be received, and it is a great pleasure to say that one finds in Oxford a library in which the ideal seems to be that students shall be able to find what they want—that the books are to be used, and not to be simply stored away. The courtesy and interest of the librarians and clerks can scarcely be



surpassed, and while it does seem strange that the subject catalogue should not have been long since completed and put into operation, it is so extraordinary a thing in a European library to find one even begun, or the idea of one even thought of, that it is most refreshing to see this important element in the usefulness of a library begun and an effort being made to bring it into complete use.

Admission to the library proper at the Radcliffe Camera is open to women on application for a printed form and having this filled by the signature of some master of arts. Any sufficiently respectable introduction will make it possible for a person who purposes serious study to have the use of the library. There is no special delay about it, and ladies will never feel any difference in the treatment that they receive from that which would be accorded to men. Reading is done chiefly in the Camera, but where any special book, especially one published before the middle of the present century, is to be used for a long time, the reader is expected to retire to one of the reading stalls in the Bodleian itself.

The library contains at present 475,000 bound volumes of printed works besides the 27,000 manuscripts. It is increasing very fast and will doubtless soon overflow the buildings devoted to it. With the leave of the librarian or curators, manuscripts may be copied and published. The galleries of the Bodleian contain a collection of historical portraits and a large number of other interesting things. The Ashmolean Museum is in a building near the library and contains many interesting collections—historical, archæological, etc.

At the Taylorian Institution there is also a large library, consisting chiefly of books in foreign languages. This library may be used by getting the signature of two masters of arts. The printed request, with these signatures, is laid before the committee, and about two weeks later the permission is given. The library is open from 11 a. m. to 5 p. m. throughout the year, except from August 16 to September 14, and books may also be taken out.

At the Radcliffe library proper, which is placed now in the university museum, there is also a large collection of books on special subjects. This library is for the benefit of scientific students. Books are arranged in subjects. (1) Philosophy, (2) mathematics, (3) astronomy, (4) physics, (5) chemistry, (6) mineralogy, (7) geology, (8) voyages and travels, (9) biological science, including human anatomy, anthropology, comparative anatomy, embryology, (10) medicine, (11) biographies. Many large illustrated works of importance are in the reading room, and cases containing transactions and proceedings of academies, journals relating to special scientific subjects, and a collection of standard books for immediate use. The library is open from 10 a. m. to 6 p. m. during term, and in vacation from 10 a. m. to 4 p. m. Readers are admitted to the library and reading room on the introduction of a professor.

The various colleges and halls have also libraries of their own, to be

used by their members. While the libraries in the halls for women are confessedly inadequate, they are constantly receiving additions and will no doubt be greatly increased in the near future. The library at All Souls College, a special library for the law department, may be used by women.

The city library is also open for the use of all who get their tickets of request signed by two ratepayers of the city. There are also several circulating libraries.

## WOMEN AT THE UNIVERSITY OF CAMBRIDGE.

### I. HISTORICAL INTRODUCTION.

The admission of women to study at Cambridge is due to a double movement, which, starting with different aims, at last coincided in an endeavor to place the work of women students on lines exactly parallel to those of the men.

The founders of Girton College had, from the first, a definite aim, which they pursued consistently, in spite of all difficulties. This aim is thus expressed:

This college is designed to hold, in relation to girls' schools and home teaching, a position analogous to that occupied by the universities toward the public schools for boys.

The memorandum of association contains this clause:

The objects for which the association is established are to erect, maintain, and conduct a college for the higher education of women; to take such steps as from time to time may be thought most expedient and effectual to obtain for the students of the college admission to the examinations for degrees of the University of Cambridge, and generally to place the college in connection with that university.

The promoters put their trust in the generosity of an enlightened public; and it was not misplaced. It was decided to raise the sum required for building and other preliminary expenses by public subscription and by the sale of a limited number of presentations. The first list was headed by Madame Bodichon with £1,000 (\$5,000). The author of *Romola* appears in the same list with a donation of £50 (\$250). One of the first and most liberal benefactors was the late Lady Stanley of Alderney, while Miss Emily Davies was the mainspring of enthusiasm.

While a building was being constructed near Cambridge a small attempt was made at Hitchin, about 20 miles from Cambridge. Here a house was hired in 1869, and 6 students entered. Miss Emily Davies, who had done so much to promote the scheme, became mistress in 1872. Thirteen was the largest number of students ever in attendance at one time at Hitchin. From the very first, in spite of all difficulties in the way of obtaining tuition and the insufficient preparation of some of the students, such regulations in regard to residence and order of examinations as were imposed on men students were followed by the women, and the course of study was that for the honors examinations

of the University of Cambridge. Distinguished professors, e. g., Professor Seeley and Dr. Hort, came over to Hitchin to lecture, and by the kindness of the examiners the lady students were examined informally by the same papers as were set for the men, and the result of the examination was informally made known. Thus the very first woman who took a tripos examination had fulfilled every condition that would entitle her to a degree had she been a man. In 1872 the association that had started the work was incorporated as Girton College. In October, 1873, the college was removed to Cambridge. The numbers gradually increased and the building received additions from time to time. The students continued to pass examinations informally until the year 1881, when the university for the first time took steps to acknowledge the women students.

The aim of Newnham was at first different. It proposed to attract to Cambridge women who wished to continue their studies, but did not specially aim at following the academic courses or at passing the university examinations. Miss A. J. Clough had, as early as 1865, conceived a scheme for starting in large towns courses of lectures for girls and teachers. Liverpool was the first center at which such lectures were given. In 1869 Cambridge started the higher local examinations for women over 18. The result of this was a need for higher instruction, and in 1870 courses of lectures to women were first delivered in Cambridge, about 70 or 80 joining at once. In order to attract large numbers of students and to accommodate those who came from other parts, it was arranged to provide a house of residence, and this was the nucleus of Newnham College. In 1880 Newnham College was formed by the amalgamation of the association for providing lectures for women in Cambridge and the association for providing a hall of residence for women attending the lectures. The articles of the association contain the following:

To establish and maintain at or near Cambridge a house or residence or houses and residences in which women students may reside and study.

To provide for the instruction of women students and for the delivery of lectures to such students or to other women at or near Cambridge.

The first students of Newnham usually worked for the higher local examinations, or simply pursued their studies with no definite examination aim. A very few entered for the tripos examinations, and passed them informally, but no attempt was made rigidly to follow the regulations as to residence and preliminary examinations that were imposed on the men. It was the formal acknowledgment of the Women's College by the university in 1881 that brought the work of Girton and Newnham into accord. There are still some slight differences which will be dealt with under their special headings.

## II. PRESENT POSITION OF WOMEN.

In the year 1881 the women's colleges received their first formal acknowledgment from the university. In 1880 the remarkable success

of Miss C. A. Scott, now professor of mathematics at Bryn Mawr, in the examination of the mathematical tripos, attracted considerable attention to Girton and the work done there; and as a result the college decided to join in an appeal to the university to open the examinations formally and grant the degrees to women. This appeal was partly successful. Although the degrees were refused, a syndicate appointed for the purpose presented a report which was accepted by a very large majority. On the main clauses the voting was 398 in favor to 32 against. The main features of the "graces" passed by the senate are the following:

1. Female students who have fulfilled the conditions respecting length of residence and standing which members of the university are required to fulfill may be admitted to the previous examinations and to the tripos examinations.

2. Such residence shall be held at (*a*) Girton College, or at (*b*) Newnham College, or (*c*) within the precincts of the university under the regulations of one or other of these colleges, or (*d*) in any similar institution within the precincts of the university as may be recognized hereafter by the university by grace of the senate.

3. Prescribes that certificates of residence shall resemble those supplied to the men.

4. States that either the previous examination or one of the usual substitutes must be taken, except as provided under 5.

5. Female students who have obtained an honor certificate in the higher local examination may be admitted to a tripos examination, though such certificate does not cover the special portions of the higher local examinations which are accepted by the university in lieu of parts or the whole of the previous examination, provided that such students have passed in Group B (language) and Group C (mathematics).

6. Provides that all female students must be recommended for admission to examination by the authorities of the college.

7. After each examination a class list of the female students who have satisfied the examinations shall be published by the examiners at the same time as the class list of members of the university, the standard for each class and the method of arrangement in each class being the same in the two class lists.

8. In each class of female students in which the names are arranged in order of merit the place which each of such students would have occupied in the corresponding class of members of the university shall be indicated.

9. The examiners for a tripos shall be at liberty to state, if the case be so, that a female student who has failed to satisfy them has in their opinion reached a standard equivalent to that required from members of the university for the ordinary B. A. degree.

10. To each female student who has satisfied the examiners in a tripos examination a certificate shall be given by the university, stating the



conditions under which she was admitted to the examination of the university, the examinations in which she has satisfied the examiners, and the class, and place in the class, if indicated, to which she has attained in each of such examinations.

The remaining paragraphs are concerned with technical details.

In 1884 some additional graces were passed, laying down certain rules for the government of women's colleges and the construction of the buildings. They provided (*a*) that the buildings should be suitable; (*b*) that each college should have a committee of management of not less than 9 members, 3 at least of the members of the senate of the University of Cambridge, and that the ordinary place of meeting for the committee should be in Cambridge; (*c*) that the arrangements for tuition and discipline should be adequate; (*d*) that before recognizing any new establishment for women the council should ascertain that the conditions above named were complied with.

Arrangements are also made for a temporary recognition of a new establishment, to be followed by a permanent recognition in the case of adequacy.

To understand the exact position of women under these regulations it is necessary to make clear the position of the male students. On matriculation they become members of the university; they are subject to university discipline; they have to reside for a certain number of terms and a certain number of days in each term; they have to take certain examinations, which are different in the case of candidates for an ordinary degree and candidates for a degree in honors.

Women are not members of the university, nor are they subject to university discipline. They are members of colleges, which colleges in their corporate capacity are acknowledged by the university, and have to submit to certain regulations laid down by the university; they have to follow the rules for residence laid down for members of the university; they are admitted to the honors examinations of the university, but are excluded from the ordinary pass degree examinations; they are allowed, if they please, to substitute for the previous examination (the first university examination) another examination, the standard of which is higher, but which admits the exclusion of Latin and Greek.

The differences of treatment thus far are slight and, in the eyes of many, superfluous, as few women will avail themselves of their right to avoid the previous examination; and the absurdity of admitting women to the harder degree examinations and excluding them from the easier ones is patent to all. The real difference between the positions of male and female students is the right of the former to use the letters of the degree, B. A. and M. A., while the latter receive instead a diploma, but are not allowed to claim the degree. This disability has been more and more acutely felt as newer universities have opened their degrees to women; and in the year 1887 petitions from several different quarters were sent up to the senate of the university, pointing

out the anomaly in the position of women and asking for the conferment of the degree. This petition contained the following statement:

Systematic study and discipline are supplied by women's colleges, and the university has made provision for testing and certifying attainment according to the standards in honors adopted for its own members; but under the existing regulations women do not become members of the university, and though they may have satisfied every condition which entitles an undergraduate to a degree, the degree itself is withheld.

The memorials were very largely signed by members of the senate, old students of the colleges, head mistresses, assistant mistresses, and miscellaneous persons whose names would bear weight.

The opposition took the line (*a*) that the higher education of women should not be permanently tied to that of men; (*b*) that if degrees were granted to women they should be conferred by some independent authority.

The opposition carried the day and the matter was not even brought to a vote. No further attempt has been made since to obtain the degree for women. Meantime the remarkable successes of the women students and the increase in the number of universities in the United Kingdom that confer degrees on women is making the anomaly all the more glaring. Yet perhaps the friends of women's education are doing well to wait until the situation becomes so absurd that the university, in order to preserve its self-respect, will be forced to make a remedy.

### III. EXAMINATIONS.

In an English university the part played by examinations is a very important one in the conferment of degrees. The work of the class room is never taken into consideration. The place of the candidate depends entirely on his success in the final examination; and the results of these examinations are very widely made known. It is of the utmost importance for a man's future career that he should obtain a place in a high class and a high place in that class.

For the arts degrees of the University of Cambridge two courses of study are possible, that for the ordinary degree and that for the degree in honors. As the latter one is open to women, it will be sufficient for our purpose to confine ourselves to that.

Most students at Cambridge are members of a college as well as of the university, and they have, therefore, on admission, passed the entrance examinations of their college. The standards of these examinations vary a good deal, and are in no way controlled by the university. Girton and Newnham have each their own entrance examination.

The first examination that has to be passed after admission is the previous examination, commonly known as the "Little-go." This may be taken at any time before a candidate enters for a tripos (honors degree) examination, but it is advisable to take it as early as possible. It is held three times in the year—in October, December, and June.

Well-prepared students may take it at the beginning of their first term (in October), and then have their full three years for their degree work.

The examination consists of three parts, which may be passed the same or at different times.

The subjects of Part I are (1) one of the Gospels in the original Greek; (2) one of the Latin classics; (3) one of the Greek classics; (4) unseen Latin translation (with dictionary); (5) questions on Latin and Greek grammar, with special reference to the set subjects.

In the case of students who desire it an additional paper on one of the Greek or Latin classics is substituted for the paper on the Greek Gospel.

The subjects of Part II are (1) Paley's Evidences of Christianity; (2) Euclid, Books I, II, III, parts of V and VI; (3) arithmetic; (4) elementary algebra.

In the case of students who desire it a paper in elementary logic is substituted for the paper on Paley's Evidences.

Part III (called "additional subjects") gives the candidate a choice among three subjects: (1) Mechanics and trigonometry; (2) French; (3) German.

It is worth noting that these additional subjects are a survival of the days when every candidate for honors at Cambridge had to pass the mathematical tripos. For this requirement additional mathematical papers in the previous examination were substituted, and a few years ago further relief for nonmathematical students was provided in the permission to substitute a modern language for these mathematical papers.

There are certain examinations which the university accepts as substitutes for the previous, provided students have passed in those subjects which are required in the above examination. These are (1) the Cambridge senior local examination; (2) the Cambridge higher local examination; (3) the higher certificate of the Oxford and Cambridge joint board examination; (4) the examination at affiliated colleges and centers prescribed in the ordinances of the university.

One or other of these examinations has often been passed at school, and it is a convenience to students to proceed at once to their honors work without the delay of the previous examination, even though it is an extremely easy one.

Besides these substitutes allowed by the university to its members, there is the special exemption granted to women who have obtained an honors certificate in the higher local examination, including a pass in languages and mathematics.

The higher local examination was started in 1869 with the object of providing some inducement to girls to continue their studies after they left school. It became extremely popular, and before university examinations were opened to women its certificate was coveted by women who hoped to obtain good posts in schools. Of late years the improved



standard of the schools has made it possible for girls in the highest class to prepare for the examination, and for the better posts a better certificate (e. g., the degree examination of a university) has become necessary. The higher local has come to be regarded as a preliminary university examination, and as such may be a substitute for the previous examination.

The subjects of examination are arranged in groups. They include religious knowledge, English language and literature, languages (Latin, Greek, French, German, Italian), in which the candidate chooses one or more at pleasure; mathematics, moral science (logic, psychology, political economy), natural science, music, history. For an honors certificate, a candidate must satisfy the examiners in elementary arithmetic and in three of the eight groups, in two of which a first or second class must be obtained.

The examination is held annually in June, and there is an additional examination in languages and mathematics in December.

So much for the preliminary examinations. Though the standard is not very high, and the work required in preparation can hardly be regarded as university work, yet, as the previous or one of the substitutes is compulsory, and no possible exemption can be obtained, even by graduates of other universities, it is of importance for intending students to be acquainted with the regulations. The real work at the women's colleges is in preparation for the final honors examinations. These, for some reason, for which various explanations are offered, are at Cambridge called triposes. Tripos examinations are held in the following subjects: Mathematics, classics, natural science, moral science, history, mediæval and modern languages, oriental languages, law, theology, and miscellaneous sciences.

Several of the examinations are divided into two parts, both held in the Easter term of each year. Certificates of first, second, or third honors are granted to students for success in the first part alone, but after they proceed to the second part, for which a more special knowledge of one or two branches of the subject is required. The time of residence in Cambridge necessary to be kept by any candidate for a tripos examination varies from 5 to 13 terms. The first part may be taken in either the sixth or ninth term, but a student who took it in the sixth term and did not proceed to the second part would not receive a degree certificate, though one who took it in the ninth term would receive one. This is an important point, as showing the stress laid by the university on residence for at least three years. No one (except a member of an affiliated college) who has not resided three years at Cambridge can obtain a degree or degree certificate.

No one can present himself for a tripos examination more than once. Most students confine themselves to the work for one tripos, but those who prefer taking two to specializing in one can divide their time between the two. An undivided tripos or the first part of a divided



tripos must be taken not later than the ninth or tenth term of residence, unless another tripos has already been passed, and then the time may not be later than the thirteenth.

The following are the regulations for the various tripos examinations:

#### THE MATHEMATICAL TRIPOS.

This examination consists of two parts. The first part extends over eight days, and between the first four days and the second four days there is an interval of eleven days. All candidates must have passed in the first four days' examination before they can be admitted to the remainder of the examination; whether they have so passed or not is ascertained by the examiners during the eleven days' interval.

No candidate for Part I will be admitted earlier than in her fifth, or later than in her tenth term of residence.

Certificates of first, second, or third class honors (wranglers, senior optimes, junior optimes) will be granted for success in the eight days' examination, but only a third class will be awarded for success in the first four days' examination alone.

Only those candidates who have obtained honors in Part I in a preceding year will be admitted to the examination in Part II, and they will not be admitted earlier than in their eighth or later than in their thirteenth term of residence. The examinations for Part I and Part II are held in May. The examination for the first four days of Part I comprises the subjects included in Schedule I, the subjects 1, 2, 3 to be treated without the use of the infinitesimal calculus or the methods of analytical geometry.

*Schedule I.*—(1) Pure geometry; namely, Euclid, Books I–VI, Book XI, Props. 1–21, Book XII, Props. 1 and 2; simple properties of lines and circles; inversion; elementary properties of conic sections treated geometrically. (2) Elementary algebra, including the binomial theorem, exponential theorem, logarithms. (3) Elementary parts of plane trigonometry so far as to include the solution and properties of triangles. (4) Elementary parts of plane analytical geometry. (5) Elementary parts of differential and integral calculus. (6) Elementary parts of statics. (7) Elementary parts of dynamics. (8) The first, second, and third sections in Book I of Newton's *Principia*. (9) Elementary parts of optics. (10) Elementary parts of astronomy. (11) Elementary parts of hydrostatics. (12) Elementary parts of heat. (13) Elementary parts of electricity.

The examination for the second four days of Part I comprises the subjects included in Schedule II.

*Schedule II.*—(1) Algebra: Theory of equations; (2) trigonometry, plane and spherical; (3) analytical geometry, plane and solid, including curvature of curves and surfaces; (4) differential and integral calculus, including Fourier's Theorems and calculus of variations; (5) differential equations, including partial differential equations of first order: Functions of Legendre and Bessel; (6) elementary, elliptic functions, excluding the theta functions and theory of transformations; (7) statics, including bending of rods; attractions; (8) hydrostatics, including capillarity and rotating homogeneous liquid ellipsoids; (9) dynamics of a particle; (10) rigid dynamics; (11) hydrodynamics; (12) geometrical optics; (13) spherical astronomy; (14) electricity and magnetism.

In Part II there are eight divisions, and any candidate who shows proficiency in two divisions is placed in the first class.

(For particulars as to these divisions see *The Student's Guide to the University*, Part II (latest edition), Deighton, Bell & Co.

It may be well to call attention here to the fact that those who have had little or no training in mathematics before coming up to Cambridge can scarcely hope to obtain a good place in this tripos. The same remark will apply to the classical tripos.

## THE CLASSICAL TRIPOS.

This examination consists of two parts, both held in the Easter term. No student will be admitted to Part II who has not obtained honors in Part I; neither may she present herself for both parts of the examination in the same year.

No candidate for Part I will be admitted earlier than in her fifth term of residence or later than in her tenth unless another tripos has already been taken. To Part II she may be admitted not earlier than in her eighth nor later than in her thirteenth term.

*Part I.*—Papers will be set in the following: (1) Latin prose composition; (2) Greek prose composition; (3) Latin verse composition; (4) Greek verse composition; (5) Greek history, literature, and antiquities; (6) Roman history, literature, and antiquities; (7) Greek grammar and criticism; (8) Latin grammar and criticism.

Further, five papers will be set containing passages for translation from the best Greek and Latin authors, together with questions arising immediately out of such passages.

*Part II.*—This second part is intended for those students who wish to show a special and technical knowledge of some of the higher branches of classical learning. It consists of five sections, A, B, C, D, and E. All candidates must pass in Section A, and in one but not more than two of the other sections.

*Section A.*—Section A consists of four papers in higher classical scholarship, namely, one paper in Greek prose composition, one in Latin prose composition, one in translation from Latin into English, and one in translation from Greek into English.

*Section B.*—*Ancient philosophy.*—Five papers of three hours each will be set in this section.

A list of selected works of Plato, Aristotle, and other authors will be issued from time to time by the classical board, but a general knowledge of ancient philosophy will be required.

*Section C.*—*History.*—Five papers of three hours each will be set in this section.

The papers will contain questions on Greek and Roman history—political, constitutional, social, and literary—and on Greek and Roman law. The chronological limits of the papers will be determined from time to time by the classical board.

*Section D.*—*Archæology.*—Five papers of three hours each will be set in this section.

Questions will be set on (a) the history of art and the lives and works of artists in the ancient Greek and Roman world; (b) the mythologies, religious usages, and ceremonies of the ancient Greeks and Romans; (c) some group or class of monuments, to be from time to time specified; (d) the art and handicraft and the inscriptions of the ancient Greeks and Romans in relation to their national and domestic life.

*Section E.*—*Language.*—In this section there will be four papers of three hours each.

Questions will be set on Greek and Latin etymology; the history of the Greek dialects and of the Italian dialects cognate to Latin; Greek and Latin syntax, together with passages for translation from Greek and Latin authors; the etymology and usages of the Greek and Latin languages as compared with one another; simple questions on Sanskrit grammar, with special reference to the history of the Greek and Latin languages; general questions on the comparative grammar of the Indo-European languages, with special reference to Greek and Latin, and questions on the history of alphabets.

(For further particulars see The Student's Guide, Part III.)

It is chiefly in verse and prose composition that early training is important for this tripos; it is difficult to acquire in a short period by mere concentrated effort the grammatical accuracy and the simplicity and elegance of style which are demanded, and which more naturally spring from long use and habit.

## NATURAL SCIENCES TRIPOS.

The two parts of this examination are both held in the Easter term of each year, and only those who have obtained first, second, or third class honors in Part I or in the mathematical tripos may offer themselves for examination in Part II. Candidates may present themselves for Part I not earlier than in their fifth and not later than in their tenth term of residence (unless they have previously obtained honors in another tripos). For Part II they must present themselves not earlier than in their eighth and not later than in their thirteenth term.

The examination for this tripos is in the following subjects: (1) Chemistry, (2) physics, (3) mineralogy, (4) geology, (5) botany, (6) zoology and comparative anatomy, (7) human anatomy, (8) physiology.

In Part I there is an examination by printed papers lasting three days, and a practical examination, conducted either in writing or viva voce, or both. It is usual to read four of the eight subjects in which questions are set. Sometimes three are chosen, but it is inadvisable to take less than three or more than four. The questions in all the subjects in this part of the examination are of a comparatively elementary character, and it is intended that they shall test a knowledge of principles rather than of details. In arranging the class list the examiners are guided by the aggregate knowledge shown by the candidates, provided that no credit be assigned to a candidate in any branch of science unless a competent knowledge of that branch of science has been shown.

In Part II there are four separate papers of three hours each set in each of the above-named eight subjects, and there is a practical examination conducted in the same manner as that for Part I. It is usual for each candidate to choose two subjects for examination, and no candidate can be placed in the first class for proficiency in one subject unless a competent knowledge of some other subject be shown also.

(For further details see The Student's Guide, Part VII.)

## MORAL SCIENCES TRIPOS.

The two parts of this examination are held in May in each year. No candidate may present herself for examination in both parts in the same year.

Candidates for Part I will not be admitted earlier than in their fifth term of residence or later than in their thirteenth, unless they have already taken honors in some other tripos.

Candidates for Part II will not be admitted earlier than in their eighth term or later than in their thirteenth, and they must previously have obtained honors in Part I or in some other tripos.

Part I consists of two papers on each of the following subjects, together with a paper of essays: (1) Psychology, including ethical psychology, (2) logic and methodology, (3) political economy.

Part II consists of papers on (1) ethical and metaphysical philosophy, (2) ethical and political philosophy and the following special subjects: (3) History of philosophy, (4) advanced logic and methodology, (5) advanced psychology and psychophysics, (6) advanced political economy, one or more of the papers taking the form of questions for essays.

Candidates for Part II must take either (1) or (2), and also one or two but not more than two of the four special subjects. No candidate will obtain a place in the class list unless she satisfies the examiner in (1), together with any one of the special subjects, or in (2), together with (6).

(For further information see The Student's Guide, Part VIII.)

## THE HISTORICAL TRIPOS.

The examination is held toward the end of the Easter term in each year, and is not divided into parts. No candidate for this tripos will be admitted earlier than in her eighth or later than in her tenth term, unless she has already taken honors in another tripos.

This examination is as follows: (1) The constitutional history of England; two papers. (2) The economic history of England (with questions involving some knowledge of economic theory); one paper. (3) Political science. Questions are set bearing on the inductive study of political institutions. A knowledge of the constitutions of ancient Athens, Sparta, and Rome, as well as of more modern constitutions, is required; one paper. (4) Special Subject I;<sup>1</sup> two papers. (5) Special Subject II,<sup>1</sup> two papers, or political economy, one paper. General theory of law and government and the principles of international law; one paper. (6) Subjects for essays; one paper. (7) Subjects for essays on English history; one paper.

(For further information see *The Student's Guide*, Part XI.)

#### THE MEDIEVAL AND MODERN LANGUAGES TRIPOS.

The examination is held in the Easter term of each year. It is divided into six sections:<sup>2</sup>

- A. English language and literature.
- B. English language, with Gothic, Icelandic, and Anglo-French.
- C. French language and literature.
- D. French language, with Provençal and Italian, or instead of Italian, Spanish, and Portuguese.
- E. German language and literature.
- F. German language, with Gothic and Old Saxon.

No candidate will be admitted earlier than in her fifth term or later than in her tenth, unless she has previously obtained honors in this or some other tripos, in which case she may be admitted in her thirteenth term.

Candidates must take two, but not more than two, of the sections, unless they have previously obtained honors in this or any other tripos, in which case they may offer themselves for examination in one section only, or in two sections, but not in more than two.

There are six papers in each section.

Section A includes papers in old English and historical English grammar, and on the various periods of English literature, with special papers on Chaucer and Shakespeare.

Section B includes papers in old and middle English language, Gothic, Icelandic, and Anglo-French.

Section C includes French composition, papers in Old French, questions on historical French grammar, and questions on the various periods of French literature.

Section D includes papers in Romance philology, in Old French, Provençal, and old and modern Italian, or old and modern Spanish and Portuguese.

Section E includes German composition, papers in old and modern High German, questions on historical German grammar, and questions on the various periods of German literature.

Section F includes papers in Teutonic philology, in old and middle High German, in Gothic, Old Saxon, and middle Low German.

#### THE LAW TRIPOS.

The two parts of this examination are held in the Easter term of each year. No student may be a candidate for Part I earlier than in her fifth term of residence or later than in her tenth, unless honors in another tripos have been already taken. For Part II no student may be a candidate earlier than in her eighth term or later than in her thirteenth. It is possible therefore to take both parts in the same year.

Part I will consist of seven papers on the following subjects: (1) General jurisprudence. (2) History and general principles of Roman law. (3 and 4) The institutes

<sup>1</sup> To be selected by the students, four periods being offered for choice. With each special subject some knowledge of original authorities will be required.

<sup>2</sup> This scheme will come into force in 1894.



of Gaius and Justinian, with a selected portion of the Digest. (5) English constitutional law and history. (6) Public international law. (7) Essays and problems.

Part II will consist of six papers on the following subjects: (1 and 2) The English law of real and personal property. (3 and 4) The English law of contract and tort, with the equitable principles applicable to these subjects. (5) English criminal law and procedure and evidence. (6) Essays.

The board may limit any or all of the above-named subjects to a department or departments of the same, provided that they give notice of such limitation two years before the time at which examination in the subjects so limited is to take place.

(For further details see The Student's Guide, Part V.)

#### THE ORIENTAL LANGUAGES TRIPOS.

The subjects are Hebrew, Aramaic (eastern and western), Arabic, Sanskrit, Persian, and the comparative grammars of the Semitic and Indo-European languages.

The examination in each of these languages is divided into two sections. In the first section it is of a more elementary character.

In the first section two papers are set in each of the languages except Sanskrit. In Sanskrit there are three papers. A paper is also set on the comparative grammar of the Indo-European languages. For the second section there are four papers in Sanskrit and three in each of the other languages.

No candidate shall be placed in Class I who has not exhibited a competent knowledge of two languages, or of one language together with elementary sections of two other languages, or of either Sanskrit or Persian together with the comparative grammar of the Indo-European languages. If both the languages are Semitic, a knowledge of the comparative grammar of the Semitic languages will be required.

#### THE THEOLOGICAL TRIPOS.

This examination consists of two parts. The first part extends over four days, the second over eight days. Both parts may be taken consecutively in the same year, or in separate years. It is taken not earlier than the eighth nor later than the twelfth term of residence, or, supposing another tripos has already been taken, one or two years may elapse between this and the examination in theology.

For Part I the subjects are: (1) Old Testament, a general paper. (2) New Testament, a general paper. (3) The book of Genesis, or some other specified portion of the historical books of the Old Testament, in Hebrew. (4) Passages for translation from the historical books of the Old Testament generally, with questions on Hebrew grammar; easy Hebrew composition. (5) The Gospels in Greek, with special reference to some selected Gospel. (6) The Acts, Epistles, and Apocalypse in Greek, with special reference to some selected portion. (7) History of the Church to the death of Leo the Great. (8) History of Christian doctrine to the close of the Council of Chalcedon.

For Part II they are: (1) Old Testament; the book of Isaiah in Hebrew. (2) Selected portions of poetical and prophetic books in Hebrew and the Septuagint, including always some portion of the Psalms. (3) Passages of a translation from the Old Testament generally; Hebrew composition.

*II. New Testament.*—(1) A selected Gospel, with some patristic commentary and the Latin versions. (2) A selected Epistle, with some patristic commentary and the Latin versions. (3) New Testament, generally with Greek composition.

*III. History and literature.*—(1) Selections from the Apocrypha, Apocryphal literature; Philo and Josephus. (2) Selected Greek and Latin ecclesiastical writings. (3) A historical period between the death of Leo the Great and the taking of Constantinople, with selected illustrative documents. (4) A historical period between the taking of Constantinople and the present time, with selected illustrative documents.

*IV. Dogmatics and liturgiology.*—(1) History and development of a selected doctrine. (2) A subject from modern theology in connection with original documents.

- (3) History of Christian worship, with special reference to selected ancient liturgies and service books, and (*b*) the history and contents of the Book of Common Prayer.  
 (4) An essay on some theological question arising out of the subjects of the section.

The mechanical sciences tripos deals largely with practical work in mechanics. All the triposes have now been taken by women except the mechanical sciences and the oriental languages. For the latter one lady is now preparing.

#### IV. METHODS OF STUDY.

One of the results peculiar to the mingled authority of university and college is a division of labor in the matter of teaching. There are university lectures, intercollegiate lectures, and college lectures, and all these may be supplemented by private coaching. Hence it is not easy to lay down the exact position of women in regard to the instruction they can receive at Cambridge. Generally speaking, however—

(1) University lectures are free and open to all comers of both sexes. These lectures do not play a large part in preparation for the triposes; often they do not even deal with the special subjects required. They are largely attended by graduates when they deal with advanced work on original lines; at other times they may incline to be popular, as was often the case with the late Sir John Seeley. They generally represent the best university thought on the subject dealt with; but as they are by no means sure to “pay” in the tripos, they seldom attract a large undergraduate audience. Yet this varies with the subject and with the professor, and it is not possible to make any general statement on the subject.

(2) Intercollegiate lectures are given at the various colleges, and members of other colleges are admitted to them, usually on payment of a fee. These lectures are usually in preparation for one or other of the examinations. Women obtain admission to a good many of these lectures, some colleges according the permission freely, others on special conditions, and some withholding it altogether. As each college has its own internal government, the authority who can give this permission is not always the same. Sometimes the lecturer has power to give it, at others the tutors of the college have to be consulted. As a rule, when permission has once been granted it is not withdrawn, and the particular college is regarded as one where women may attend the lectures. It is important to remember that these colleges are places of residence for male students as well as places of instruction, and that therefore attendance here is not at all the same thing as the common meeting of men and women in some lecture room on neutral ground. Some colleges require the lady students to be accompanied by a chaperon, but as a rule it is considered enough to stipulate that one lady student should never come alone, but that there should be two or more present.

(3) College lectures are for the members of the college only, and often partake of the nature of a private class. Much of the work done at Girton and Newnham is of this character.

(4) Coaching is generally a matter of private arrangement, but the women's colleges include some coaching in their inclusive fees. The amount required depends on the nature of the study. In classics a certain amount of the work is always done in this way—e. g., prose and verse, correction of unseen translation, and generally some time is given to the solution of difficulties in the student's private reading. In mathematics coaching plays a large part; indeed, certain coaches who succeed in turning out many high wranglers (first class in the mathematical tripos) among their pupils become celebrities.

In natural science and history there is less of this work, and the lecture room plays a greater part. But here too there is nearly always some private correction of papers and general direction of work. There is much less lecture-room and recitation work than in America, and more independent work by the students themselves. Hence the necessity of having some one generally to guide and direct the work.

Girton supplies all the coaching required by the student for an inclusive fee. Newnham generally supplies as much as seems advisable, but a student wishing extra coaching pays for it herself. The fee is usually 10s. 6d. an hour.

*A. Mathematics.*—In connection with the special work required for the mathematical tripos, Miss Collier, mathematical lecturer at Newnham, makes the following statements:

#### MATHEMATICAL TRIPOS.

The work for this tripos, as for the classical, is far more than can be covered in a three-years course. The moderately well-prepared student, before coming up, has usually studied the elements of geometry, algebra, trigonometry, conic sections (treated both geometrically and analytically), statics, and dynamics. Such a student could not hope to acquire a knowledge of all the many subjects embraced by the tripos examination, for in addition to more advanced work in the subjects above mentioned these comprise theory of equations, differential and integral calculus, differential equations, spherical trigonometry, astronomy, optics, hydrostatics, heat, electricity, Newton's Principia, Sections I and II, solid geometry, dynamics of a particle, rigid dynamics, and analytical statics. In all these subjects the student is expected to show very considerable skill in effecting the solution of problems; much time and labor is devoted to the development of her powers in this direction. To quote a well-known mathematical coach, "In Cambridge mathematics is studied as an art, and not, as elsewhere, merely as a science."

As a rule the students read with a coach, either alone or in small classes of two or three. They usually have three lessons a week of an hour each. Occasionally they attend courses of lectures given by university professors and lecturers.

A knowledge of a limited number of these subjects is sufficient to obtain a second class. Those who are working for a third class would only attempt to read the following subjects: Geometry, algebra, trigonometry, conic sections, statics, dynamics, astronomy, optics, hydrostatics, Newton's Principia, heat, electricity, differential and integral calculus.

*B. Classics.*—With the growth of the colleges the number of women reading classics has increased, and the development of the classical teaching in girls' schools has removed in a great measure one of the



former difficulties in the way of organization at Cambridge, which consisted in the great difference in the amount of knowledge possessed by those who came up.

It is now usual to dispense with elementary classes in arranging the work for classical students. The nominal course of study now consists of a class for Latin reading, a class for Greek reading, individual teaching in Latin and Greek prose and verse, and in unseen translation from both languages, and courses of lectures on history, grammar, and philology. A great part of the reading is done by the students alone, and they take their difficulties to the lecturer.

The greater part of the teaching is given by members of the university, several of the best classical lecturers at Cambridge being on the staff of the women's colleges. Each of the colleges has also two resident classical lecturers, and one or two other lady lecturers are on the staff. In each case these are old students of the college who have distinguished themselves in the tripos. Courses of lectures in history and grammar are arranged for as they are required, but the teaching provided by the university and colleges of Cambridge is usually available in these subjects.

The above applies to the preparation for Part I of the tripos, but women often go on to Part II; indeed, it is really more common among women than among men to read for the specialized groups which make up Part II.

Courses of lectures in ancient philosophy, philology, history, and archæology are arranged by the university and colleges of Cambridge, and these are in most all cases open to women; what further work is required is provided by private coaching.

*C. Natural science.*—The following is a statement by Miss Greenwood, lecturer at Newnham College:

#### WORK IN NATURAL SCIENCES AMONG WOMEN IN THE UNIVERSITY OF CAMBRIDGE.

The work in natural sciences in the University of Cambridge falls readily into two main divisions. Teaching in theory is given largely by means of lectures, of which there may be audiences ranging in number from ten to more than two hundred, while practical work takes the form of demonstrations. Since practical work is organized in connection with almost all the courses of lectures (for we regard it as of extreme importance), there are some laboratories in which the classes are very large; in this case demonstrators are provided in such numbers that, roughly speaking, one demonstrator has to direct not more than twenty men. The lectures given by professors, readers, or lecturers of the university are thrown open to the students of Newnham and Girton by individual courtesy; the demonstrations are open in some cases, but women are not admitted where there is great pressure for room. This pressure is felt most in elementary work and perhaps in biological subjects, for the majority of the men who read natural sciences in Cambridge are taking medical degrees, in which of course biological work is involved, while the elementary classes are naturally larger than those which provide advanced work.

As an instance of unusually free admission I may quote the study of physics, in which by the kindness of Prof. J. J. Thomson, men and women are received at the lectures and in laboratories on equal terms throughout their course. The physiological courses furnish an example of division in elementary work; thus, Prof.



Michael Foster's lectures are open to women; his elementary practical classes are closed; while in advanced physiology, where the numbers are fewer, lectures and laboratories are open alike. In chemistry, too, no practical teaching is offered to women by the university, but they are kindly admitted by Mr. Pattison Muir to the advanced laboratory of Gonville and Caius College.

To meet the need thus created by the numbers of men students we have laboratories for the use of women, managed and staffed by former students of the women's colleges. The Balfour laboratory (named after Prof. F. M. Balfour and given to Newnham College by his sisters) is used by students of Newnham and Girton alike, and here all the practical work for the elementary courses in biology, physiology, morphology, and botany is done, with revision and advanced work when they are needed. Here, too, there are special science classes when the teaching available from the university is temporarily inadequate or unsuitable, and here we have some students (possibly corresponding to American post-graduates) and demonstrators carrying on research. In the same way there is provision for practical chemistry; each women's college has a chemical laboratory, the teachers at each being almost entirely women. We feel that the existence of separate chemical laboratories at Newnham and Girton is rather accidental than advisable, and that the joint work which is done at the Balfour laboratory gains from the fact that the classes are fed by students of both colleges and that there are greater numbers from which demonstrators and the students who wish to carry on research may spring.

Individual instruction and guidance, though less necessary in the natural sciences than in classical and mathematical work, is of course most valuable, and this is given largely by the demonstrators of the women's laboratories, who are often also resident lecturers of Newnham or Girton.

I may add that this arrangement of work, the apparently accidental result of circumstances, is, on the whole, satisfactory. I believe that in the first stages of a subject, at any rate, women are the best teachers for women, and that a lecturer of one of our colleges ought, after association with the students when they are beginning their courses, to be the more efficient and sympathetic guide for them throughout. But I think, too, that the change of atmosphere and diversity of teaching which are gained by the admission of women students to advanced classes taught and organized by men are, from our point of view, invaluable.

There is no need for special comment on the work for the other tripos. In modern languages there are always university and other lectures dealing with the examination subjects, and a certain amount of work is done in college in composition in foreign languages, setting and correcting of papers, lectures, etc. Hitherto the number of women taking this tripos has been in excess of the men, and there has been no difficulty whatever in providing for the students of Girton and Newnham the same teaching in these subjects that is given to members of the university. Students who specialize in a foreign language ought to have a good conversational knowledge of that language before coming up, and it is very advisable to spend one at least of the long vacations in the country, learning the language on the spot.

In history no large amount of preliminary knowledge is expected. What is most helpful is a good knowledge of general history and sufficient acquaintance with Latin and modern languages to enable students to use original sources when required.

In moral sciences a part of the work is done in Cambridge and part, requiring more individual attention, in small classes or private coaching.

Law, theology, and oriental languages have as yet attracted few women, but they can obtain instruction in these subjects if they desire it.

#### V. GIRTON COLLEGE.

Girton College was started from the first with a definite aim, which has never been left out of sight, viz, to give women a university training similar to that given to men, and to obtain for them the degrees of the University of Cambridge. The unity of aim is represented in the unity of the building. When it was only possible to build a very small piece, it was arranged that that piece should form part of a larger whole, and thus each successive addition has further developed the idea in the architect's mind, but not introduced any new disturbing elements. The college now contains rooms for the mistress, vice-mistress, junior bursar, 6 resident lecturers, 105 students, 12 lecture rooms, library, reading room, hall, chemical laboratory, and other accommodations.

The general appearance of the college is very impressive, and conveys an impression of size greater than the reality. This is due to the long corridors, on only one side of which are rooms, while on the other there are rows of windows, which contribute to the appearance of height and light, so characteristic of the whole building. Girton stands in the midst of its own grounds,  $1\frac{1}{2}$  miles from Cambridge and from the college tower. The view extends over the flat country for many, many miles. The grounds are carefully kept, Miss Welsh, the mistress, being an expert in horticulture, and herself directing the laying out of the walks and planting of shrubs. Outdoor life plays a great part at Girton. There are teas on the lawn, reading parties under the trees, country walks to the Nadingley woods, tennis and hockey; and for the less energetic there is the "Woodland Walk" for a constitutional, which winds among shrubs and flowers all round the college grounds, and just a mile in length.

The buildings are in three stories, known respectively as bottom, middle, and top corridor. Every student has two rooms of her own, a study and a bedroom, except on the top corridor, where there are seven large rooms with a part curtained off, the result being practically much the same. As a rule there are folding doors connecting the two rooms, but each can be approached separately from the outside. The list of furniture supplied by the college is as follows:

*Sitting room.*—Carpet, curtains or blinds, fender, fire irons and guard, coal scuttle and scoop, hearth brush, writing table with drawers, small side table, cupboard with lock, easy-chair, two cane chairs.

*Bedroom.*—Carpet and curtains, bedstead and bedding, chest of drawers, dressing table and glass, washing stand and toilet case, bath, pail and hot water can, towel rack, linen basket, cane chair, and curtain linen.

This makes a good nucleus, and many students add a sofa or another easy-chair or two, some fancy tables, and, of course, their own pictures

and ornaments. Some very luxurious girls entirely refurnish and decorate their rooms; on the other hand, those who have to keep down expenses can very well manage with what the college supplies. Wild flowers, leaves, berries, etc., are easily obtained for decoration, and early in the May term all the rooms are gay and fragrant with cowslips and hawthorn. Again, the rooms are prettily built, the windows large and light, that they may lend themselves easily to beautifying, and it is hardly possible to find a study that is not bright and attractive. On the bottom corridor are the dining hall, library, reading room, 13 lecture rooms, and the laboratory, besides a number of sets of students' rooms. The dining hall has been enlarged of late years and now easily accommodates all the students. Here are hung portraits of some of the benefactors of the college—the late Lady Stanley of Alderney, Miss Emily Davies, and Madame Bodichon. At one end of the room is the high table where the mistress and lecturers sit. The students sit at four long tables. All dine together at 6.30. Breakfast is on the table from 8 to 9, and from 12 to 3 each student goes in and takes her meals when she pleases between those hours, helping herself to the dishes on the side tables. Dinner is the only formal meal. Tea is taken to the students' rooms in the afternoon; and in the evening a bag with a roll and butter and the requisites for making tea, coffee, or cocoa is taken to each of the rooms. Every one takes this little repast when she pleases. It is usual to carry the bag to a friend's room and have a little sociable meal instead of a solitary one. The hall serves other purposes besides that of dining. The Sunday evening services are held here, as also the college concerts and the larger meetings of the debating society. It is a room of fine proportions and looks extremely well at festive gatherings, e. g., the Old Students' dinner, which takes place here once in two years.

The library is a very beautiful room, with cosy window seats and delightful little nooks by the spacious fireplaces. It contains about 6,000 volumes, not quite as many as might be expected from the general equipment of the college, but it is gradually being improved. Among the treasures are complete editions of Tennyson and Ruskin, presented by the authors. The college also owns the library of Mrs. Mary Somerville, but this is kept in another room and held in very special honor.

The reading room is also a fine room, with large bay windows and cosy window seats. It contains a large assortment of papers and magazines, some provided by the college and others bought by subscription among the students. Here hang some charming drawings by Miss Alexander, presented to the college by Mr. Ruskin; and here, too, are the students' notice boards, with a bewildering list of announcements concerning college societies, things lost and found, objects for sale, offers to share cabs to Cambridge, etc.



The lecture rooms are small, as they are not arranged for large lectures, but rather for private coaching or small classes. They are, however, very pretty and comfortable.

In a small room on the ground floor the Girton antiquities are kept. This is a very interesting collection of old Saxon and Roman pottery, glass, ornaments, etc., found in the grounds of the college. It is assumed that the place may once have been used as a burying ground, and it is known that the very straight road between Cambridge and Huntingdon on which Girton is situated once formed part of a Roman road, the *Via Devana*.

Above the library are the mistress's rooms, which are large and handsome. The college also has a small hospital, used for isolating infectious patients, and a gymnasium, which, however, is by no means adequate either in size or equipment. Regular gymnastic instruction has of late been provided, but outdoor games, walks, bicycling, etc., are far more popular with English girls than systematic gymnastics under medical or professorial direction.

The rules to be observed by the students are the following:

*Girton College—daily routine.*—8 a. m., prayers; 8.15 to 9, breakfast; 12 to 3 p. m., luncheon; 6 p. m., dinner.

The lectures are for the most part given in the afternoon.

Students are required to enter their names on the marking roll at some time between the hours of 8 a. m. and 9 a. m., 12 and 3 p. m., and 6 and 7 p. m. Every student is required to be present at marking and at the lectures belonging to her course, except when leave of absence has been granted by the mistress.

Students may have tea in their rooms at 4 o'clock, and after dinner up to 9 o'clock. Students who require wine may supply themselves either from home or through the housekeeper.

The college gates are open at 7 a. m.; in winter they are closed at 6 p. m.; in summer at dusk. Except within these hours students may not be out beyond the grounds. Students may accept invitations from families, but are not at liberty to accept other invitations or pay visits of any sort to college rooms without special permission. They must not be out of the college later than 11 p. m., and must not accept evening invitations for more than, on an average, once a week in any one term. A student asking for leave of absence must mention the place to which she proposes to go. Subject to the above provisions, students are required to be within doors at 10 p. m., when the house is closed.

A covered building is provided for games and gymnastics, and facilities are given for out-of-door games. Students have also the use of a reading room and pianos. Subject to such regulations as may be prescribed by the mistress, students may invite friends to join in games in the college grounds and in the gymnasium, and may entertain friends at luncheon or dinner in hall, or at tea in their own rooms, at a fixed charge. If guests are invited to remain in the college after the gates are closed, the time must not extend beyond the time for house locking-up.

In the foregoing regulations the term "friends" or "guests" applies to ladies only, except in the case of a parent or guardian. A public room is provided in which students may see visitors up to 6 p. m., subject to the approval of the mistress. Students are not expected to receive the same visitor more than once in each term, except in the case of ladies or a parent or guardian.

Students are required to be in residence on the day that each term begins, except when leave of absence has been obtained from the mistress. If leave is applied for



on the ground of health, the application must be accompanied by a medical certificate. Students are required to inform the mistress before returning to the college at the beginning of term of any infectious illness which may have appeared in their homes or with which they may otherwise have come in contact during the vacation. Students who desire to reside at Cambridge during any part of the vacations must obtain the sanction of the mistress.

Admission to the college is by examination. The following are the regulations:

#### ENTRANCE EXAMINATION.

Examinations are held in London in March and June. A fee of £1 is charged. Forms of entry may be obtained from the secretary. Application should be made for these forms in time to return them, filled up, with the examination fee, not later than January 31 for the March examination and April 30 for the June examination.

The examination is conducted in writing. Every candidate is required to satisfy the examiners in—

*Part I, Preliminary.*—(1) The principles and practice of arithmetic. (2) English grammar and composition, with questions on the construction of sentences and meanings of words. (3) Physical and political geography. (4) English history. Candidates will be examined in March and June, 1894, upon the period from the Restoration to the death of Queen Anne. A general knowledge of the leading facts of English history is also required. (5) Scripture history.<sup>1</sup> (The New Testament.)

*Part II, Optional subjects.*—Every candidate is also required to satisfy the examiners in two of the following subjects: (1) Latin; easy passages for translation from Latin into English, and easy English sentences for translation into Latin, with questions on grammar. (2) Greek; an easy passage of Attic Greek for translation into English, and easy English sentences for translation into Greek, with questions on grammar. (3) French. (4) German. (5) Elementary mathematics, Euclid, Books I, II, and algebra up to quadratic equations, inclusive.

A certificate of having passed one of the following examinations is accepted in place of the entrance examination as qualifying for admission:

- (1) The matriculation examination of the University of London.
- (2) The Cambridge higher local examination, provided that Group B is included.
- (3) The examination for higher certificates of the Oxford and Cambridge schools examination board.
- (4 and 5) The Cambridge or the Oxford local examination for senior students, provided that a language is included.
- (6) Three sections, including A and B, or Section A and two languages in Section B of the Durham local examination for senior students.
- (7) The preliminary examination of the Victoria University.
- (8) The Edinburgh senior local examination, provided that the department of languages is included.
- (9) The Glasgow senior local examination, provided that one of the optional subjects selected is taken from Department F.
- (10) The Aberdeen senior local examination, provided that Department A is taken.
- (11) The St. Andrews senior local examination, provided that two languages other than English, or mathematics and one language other than English, are included.
- (12) The leaving certificates examinations of the Scotch education department, provided that the candidate passes at one examination in four of the following subjects: (1) Elementary mathematics; (2) English, and (3 and 4) any two of the following languages: Latin, Greek, French, German.
- (13) The matriculation examination of the Royal University of Ireland.

<sup>1</sup> In case of objection, this subject is not required; but notice must be given beforehand if the paper is not to be taken.

(14) The senior grade of the Irish intermediate examination if the candidate has passed in five of the subjects 1-10, provided that mathematics, English, and one other language are included. A candidate who has passed in arithmetic in the middle grade may substitute some other subject for mathematics.

(15) The Sydney senior local examination, provided that Sections I, III, IV, IX, one of the sections in Group II, and one, in addition to arithmetic, in Group II or III are taken.

(16) The entrance examination of the University of Calcutta.

(17) The matriculation examination of the University of Bombay.

From the long list of substitutes allowed, it is evident that which the college desires is some security that candidates are equal to the work rather than the certificate of one particular examination. In one or two cases American students have been admitted without examination on supplying satisfactory references from their own college.

The college course occupies three years, half of each year being spent in residence. The charge for board, lodging, and instruction is £35 (\$175) per term, paid in advance. This sum covers the whole of the university and college charges. It includes lectures, coaching, examination fees, cabs to lectures in Cambridge and to examinations, the subscription to the Cambridge University Musical Society, and cabs to and from the practices. It is important to remember that this is an inclusive fee, and that any charge incurred for a student in connection with laboratories or lectures in Cambridge is covered by the college. There is even a little set of rooms hired by the college in Cambridge for the use of its students, including reading room, dining room, and waiting room. Students have free access to this; and those whose work keeps them in town till the afternoon have lunch provided free of charge. The student pays nothing herself except laundry, books, subscriptions (which are optional), and her private hospitalities. An economical student can easily do all this for £5 (\$25) a term, though she can, if she pleases, spend much more on it.

Students who desire to continue their studies at Cambridge during the long vacation may reside at the college during July and August at a charge varying in accordance with the number of weeks for which they may wish to stay. It is not, however, necessary to reside; sometimes students work with their tutors by correspondence during this time. At others they retire to some country place for a course of private reading. So much of the Cambridge work is done by the student independently that a couple of months' work without lectures is often very helpful.

A long list of scholarships is offered by the college, and these are eagerly contended for.

#### SCHOLARSHIP EXAMINATIONS.

Candidates for scholarships must have passed an examination qualifying for admission to the college, such examination including Latin and elementary mathematics. If not previously qualified, candidates may take the required subjects at the time of competing for scholarships.

Scholarships and exhibitions will be awarded for proficiency in any one of the following groups, credit being given for knowledge of some one subject taken from another group.

*I. Classics.*—Latin, Greek.

*II. Mathematics.*—Euclid, Books I–IV, VI, and XI, Props. 1–21, and geometrical conics, algebra and trigonometry, elementary mechanics, and analytical conics.

*III. Natural science.*—Chemistry; physics, viz, heat, mechanics, light, electricity, and magnetism; botany.

Every candidate for a scholarship in this group must take chemistry, heat, and mechanics, and may take in addition one of the three remaining subjects.

The examination will include practical work in chemistry, physics, and botany.

*IV. Modern languages.*—French, German, Italian.

Every candidate for a scholarship in this group must take French and German, and may take in addition Italian.

*Scholarships and exhibitions to be awarded on the scholarship examinations.*—The Sir Francis Goldsmid Foundation Scholarship, of the annual value of £45.

Two scholarships of the annual value of £60 and £40, respectively, and other scholarships offered by the college.

The Clothworkers' Exhibition, of the annual value of £60, offered to candidates whose means are inadequate to cover the whole cost of their college education, preference being given to those engaged in or preparing for the profession of teaching.

The tenure of the scholarships and exhibitions is for three years, beginning in October, 1895, with, in the case of the Clothworkers' Exhibition, one additional term. Power is reserved to withhold any of the scholarships offered by the college, or to substitute for them other scholarships of less value, if candidates of sufficient merit do not present themselves.

*Gilechrist scholarship.*—A scholarship of £50 a year for three years, given by the Gilechrist trustees, for women desirous of studying at either Girton or Newnham College in preparation for one of the tripos examinations, will be awarded, provided that a satisfactory degree of proficiency is shown, on the results of the Cambridge higher local examinations, 1895, in one or other of the following groups:

B. Two languages, of which either Latin or Greek shall be one.

C. Mathematics.

E. Physical and natural science.

Candidates must either have obtained an honor certificate in the Cambridge senior local examination, or a higher certificate of the Oxford and Cambridge schools examination board, with distinction in at least one subject, or at the time of the award be entitled to a certificate in the Cambridge higher local examination, or have satisfied the examiners in arithmetic and obtained a first or second class in two groups of that examination.

*Oxford and Cambridge schools examination.*—Two scholarships, each of the value of £30 a year for three years, will be offered on the examination for higher certificates, to be held in July, 1895, preference being given to candidates showing proficiency in classics, mathematics, or natural science. The successful candidates will be required to commence residence in October, 1895, or later, as the college may determine. The scholarships will not be awarded unless a sufficient degree of proficiency is shown.

*Cambridge senior local examination.*—Two scholarships, each of the value of £30 a year for three years, will be offered to the best candidates among the senior girls in the examination to be held in December, 1894. The successful candidates will be required to commence residence in October, 1895, or later, as the college may determine.

Any of the above scholarships may be augmented in the case of a student requiring further assistance. Only one scholarship can be held by the same student. A student who has already obtained a scholarship awarded by the college will not receive the offer of a scholarship on any subsequent examination, unless it should be



one of superior value. The scholars will be required to read for a degree certificate in honors.

Scholars not only enjoy the emoluments of their scholarships but they also receive thereby a good deal of prestige. In the college hall the scholars precede the other students. The senior student of the college is that student of the fourth year who entered with the most important scholarship.

Girton College does not allow any out-students, nor does it as a rule admit women who do not wish to read for the ordinary university course. There are a few exceptions to this rule, and every such case will be considered on its own merits. Graduates of American colleges who do not wish to enter for a tripos will probably be allowed to reside for a year or two, choosing their own lectures with the advice of one of the resident lecturers. Girton students are not allowed to avail themselves of the privilege offered by the university of taking the higher local examination instead of the previous. In every respect they conform with the regulations laid down for members of the university in regard to residence and examinations; and this has been done ever since the college started at Hitchin. As the first students received no acknowledgment from the university, the college instituted a certificate called a degree certificate, to be conferred upon any student whose proficiency has been certified to the satisfaction of the college, according to the standard of any examinations qualifying for the B. A. degree of the University of Cambridge, providing that such student has fulfilled, so far as in the judgment of the college was practicable, all the conditions imposed for the time being by the university on candidates for degrees. This certificate is of less importance now that the university confers one; still the college continues to give it, and in fact the certificated students have certain rights and privileges, the chief being that of electing three representatives on the Girton College committee.

The mistress of Girton is Miss Welsh, one of the early students of Hitchin days. Until this Easter Miss Florence Ward acted as vicemistress and librarian. The honorary secretary is Miss Emily Davies, to whose energy and enthusiasm the college really owes its existence. The honorary secretary, secretary, and assistant secretary reside in London.

The lecturers resident in college are: Classics, Miss Jex-Blake and Miss Daniel; mathematics, Miss Meyer; moral science, Miss Constance Jones; mediæval and modern languages, Miss Hensley; history, Miss McArthur.

Much instruction is also given in the colleges by members of the university, and the students attend courses of professorial and inter-collegiate lectures in Cambridge. As the distance is rather great, the college provides cabs, known as "lecture flies," between 9 and 1 in the morning. These are frequent objects on the Huntington road, which



leads out to Girton. Lectures at Girton are often given in the afternoon, and the students then enjoy the luxury of a long morning for quiet study. The number of lectures attended is far fewer than at American colleges, and the amount of independent work done greater. Five or six hours of private work given to the field covered by a single lecture would not be considered at all; in some subjects this would certainly be below the average. Hence, except the obligation to attend all the lectures belonging to a course, a student is very free to arrange her own working time as she pleases, conforming, of course, to the regulations renewed from time to time by the students themselves, that at certain hours there shall be as little noise as possible in the college.

Social life at Girton is very fully developed. Many girls come there straight from school, and now for the first time have an opportunity of exercising hospitality, playing the hostess to their friends in college and in Cambridge. The Girton students receive a good deal of hospitality from families resident in Cambridge, and this is usually repaid on the occasion of college concerts, tennis matches, etc., when little private teas are given by the students to their own lady friends either before or after the festivity. For college parties Sunday afternoon is a favorite time, and little coffee parties are given after dinner, and sometimes teas at about 9 or 9.30, when the greater number stop work for the day. Then there are all the college societies, bewildering to the uninitiated. These are not secret societies, but associations for some definite object—some for work, some for play. In the first rank come the mathematics, classical, natural science, modern languages, and history clubs, at the meetings of which original papers are read and discussed. The lawn tennis, cricket, and hockey clubs are very important, for those games are very popular at Girton, and arrangements have to be made for tournaments, matches with Newnham, with Oxford, etc. There is a musical society, which generally arranges about two concerts a year. There is a debating society, which generally holds two debates a term, and once a year meets the Newnham society for the intercollegiate debate, and a junior debating society, for purposes of practice. The fire brigade is a very important institution, the impression prevailing that it may some day save the existence of the college. The pumps, however, are so small that not very much service could be done by them; however, the ladder practices and the competition in descending from a window by a self-made knot might prove useful in case of an emergency, which is, however, very unlikely to arise. The college has a gymnasium, but the equipment is very incomplete. A gymnastic instructor has lately been appointed. A bicycle club has been lately started. Here, as elsewhere in England, far more stress is laid on the exercise spontaneously taken in connection with walking, riding, outdoor games, etc., than on systematic gymnastic exercises under medical supervision. On the whole, English college girls are a healthy race, and their physique often improves a great deal during residence.

The college supports a magazine, the *Girton Review*, which appears once a term and reports all the chief events. It is very interesting to old students, though it does not contain much matter of general interest.

As regards the religious tendency of the college, it may be called undenominational. Prayers are read every morning by the mistress, and a religious service of the Church of England is held in the hall on Sunday evenings, but attendance is not in either case compulsory, and no question is ever asked by any of the authorities as to the place of worship attended by a student. The church of Girton village is not far off, and it is easy to attend one of the Cambridge churches or college chapels; but these matters are left entirely to the individual.

Like the other women's colleges, Girton contributes to the Women's University Settlement at Southwark. All subscribers have a right to be represented on the committee, and one of the members is elected by present students, another by past students. Working parties are sometimes arranged at Girton to make garments, which are sold very cheaply to the poor people in the neighborhood of the settlement.

#### VI. NEWNHAM COLLEGE.

Newnham College was incorporated in 1880 as the union of two associations. In October, 1871, Miss A. J. Clough took charge of a house in Cambridge for the benefit of students at a distance who wished to attend the association's lectures. As the number of students steadily increased, a hall was specially built for the purpose and put under the charge of Miss Clough. In 1879 a second hall was erected, under the name of North Hall, and the original one received the name of South Hall. A third hall—Clough Hall—was opened in 1880, and the others were then rechristened, respectively, Old Hall and Sidgwick Hall. In 1893 a new building, called the Pfeiffer Building, was added to the old hall. An archway was made as an approach to the grounds, around which all the buildings are grouped, and connection thus established between all the different parts of the building. The college now stands on a site of about  $8\frac{1}{2}$  acres; it consists of three halls, connected by covered corridors, and it contains accommodations for the principal and vice-principals, with resident lecturers, and about 150 students. The principal is Mrs. Henry Sidgwick; the vice-principals are Miss Helen Gladstone, Miss Jane Lee, and Miss Katherine Stephen. Each hall is under charge of one of the vice-principals, and in each is a dining hall, reading room, and other rooms for the common use of the students. The college hall is used as the dining hall of Clough Hall, and is large enough for the whole college to dine together at times. There is a small hospital, which can be isolated in case of infectious illness.

Each student has one room of her own. These vary in size a good deal. For some specially large ones or for sets of two extra fees are charged. The necessary furniture is provided by the college. There

is always a low couch, which can be turned into a sofa during the day. A very little curtaining turns one of these rooms into a pretty parlor. There is always an open fireplace and every room has a kettle. Fire and kettle play an important part in connection with the little hospitalities shown by students to their friends.

The ordinary fees are 25 guineas (\$130) a term. There are three terms in the year, from eight to nine weeks in length, the same residence being required as for members of the university. These fees include all charges for board, lodging, and the teaching required in preparation for the honor examinations. They do not include the laboratory fee, which is £1 1s., nor the fees for the university examinations. These are: On admission (1) to any undivided tripos, or (2) to the first part of any divided tripos, £5 (\$25); on admission to the second part of any divided tripos, £2 (\$10). After having passed any tripos examination, an admission to a second tripos, £2. The fee for each part of the previous examination is £1.

The complete course of study at Newnham College involves three years' residence and preparation for a tripos examination.

Students are not admitted under the age of 18 except in special cases. They are required to give satisfactory references, and no student is permitted to come into residence without the approval of the principal.

Before admission an intending student must either pass the Newnham College entrance examination or an examination which is allowed as a substitute. These are the Cambridge higher local, Cambridge senior local, Oxford and Cambridge schools examination board (these are under special conditions), or the examinations for affiliation to the University of Cambridge.

The requirements are so chosen as to insure that a student will be able to pass the previous examination or one of the substitutes very soon after entrance.

There are some special cases in which students are admitted without examination.

(a) A candidate obtaining a scholarship is exempt from further entrance examination.

(b) In certain cases foreigners are exempt, provided they can show by certificates and recommendations from persons in authority that their knowledge is up to the requirements of the college. As the entrance examination is held in March, the college would not expect a student from a distance to present herself then if she did not enter till October. Each case would be considered separately, but it is safe to say that a graduate of one of the colleges recognized by the Association of Collegiate Alumnae would have little difficulty in obtaining admittance.

The following are the requirements for the entrance examination, which is held annually in March. There are four parts: (1) Arithmetic, Euclid, algebra; (2) French and German; (3) Latin; (4) Greek.



Candidates are required to pass in part 1, and in one at least of parts 2, 3, and 4.

In (1) there are 3 papers of two hours each.

In (2) there are 2 papers of two hours each, 1 in each language.

In (3) there is 1 paper of two hours.

In (4) there is 1 paper of two hours.

In 2, 3, and 4 passages are set for translation from the books set each year for the previous examination.

The college admits some women as out-students. These must be (a) women living with their parents or guardians in Cambridge, or (b) women not generally resident in Cambridge, who are bona fide students, and either over 30 years of age or unable to afford the cost of residence and accustomed to support themselves. Special cases are specially considered. These students are bound to reside in lodgings approved by the principal, and to conform to such rules as may be laid down for their guidance.

The regulations are as follows:

(a) The ordinary fee for out-students is £9 (\$45) a term. The fees are payable in advance. Out-students who are not working for Cambridge examinations pay a tutorial fee of £1 per term to the college, and pay their lecture fees separately.

(b) Each out-student is assigned to one of the halls.

(c) An out-student has the right to read in the library, and to dine in her hall once a week during the term time.

(d) Permission to reside as out-students will not in general be granted to holders of £50 scholarships, and permission will require to be renewed every year.

(e) Application for admission as out-students must be sent in not later than September 1. A good many scholarships are offered by the college, and these are of immense value to able students who could not themselves defray the expenses of their education. The following is the list and the conditions under which they are given:

#### SCHOLARSHIPS AND EXHIBITIONS.

The council of Newnham College offer the following scholarships for competition in the years 1894 and 1895:

(a) One of £50 a year, for three or for two years, founded by the late Mr. Stephen Winkworth.

(b) One of £50 a year, for two years, given by Professor Sidgwick.

(c) One of £50 a year, for three years, given by the Clothworkers' Company, to be held by a student whose means are inadequate to defray the cost of residence at Newnham College.

(d) One of £50 a year, for two years, given by the Drapers' Company, to be held by a student who is preparing for the profession of teaching.

(e) One of £50 a year, for two years, called the Cobden Scholarship, given by Mrs. Stephen Winkworth.

(f) The Mary Stevenson Scholarship of £35 for one year.

(g) One or more of £35 for one year.



The above scholarships will be awarded as follows:

At the classical scholarship examination to be held at Newnham College in March, 1895, one scholarship of £50 a year, for three or two years, will be awarded to the best candidate, provided that such candidate attains a standard satisfactory to the examiners.

At the Cambridge higher local examination in June, 1895, three scholarships of £50 a year, for two or three years, will be awarded either (1) for distinguished success in Group C; or (2) for success in two of the Groups A, B, C, D, E, H, provided that one of the two be B or C; or (3) for distinguished success in Group E.

Candidates for the scholarships to be awarded for success in Group E must pass in one or both of papers 2 and 3 (chemistry and physics). If they do not take 2, they must pass in elementary chemistry in paper 1 (the elementary paper), and if they do not take 3 they must pass in elementary physics in paper 1. They must take the laboratory examination at Cambridge in connection with any of the papers 3 to 7 which they wish to count toward the scholarship.

The Cobden Scholarship (*e*) will be awarded either (1) for distinguished success in Group D, including distinction in political economy, or (2) for distinguished success in Group II, together with distinction in political economy.

One or more smaller scholarships of £35 (*g*) may be awarded to candidates who have failed to obtain one of the larger scholarships in June, and one of these scholarships of £35 may be awarded for distinguished success in the Cambridge higher local examination in December.

The Mary Stevenson Scholarship (*f*) will be awarded for distinguished success in the Cambridge senior local examination held in December, 1894.

Candidates for entrance will be eligible for the scholarships offered in the higher local examination if they have either (*a*) passed in two groups of the higher local examination, one of these being B or C, and in arithmetic; or (*b*) gained honors in the senior local examination and passed in either Group B or Group C of the higher local examination. Candidates who have already resided as students for two or more terms will be eligible if they have fulfilled the conditions as to examinations required by the University before admission to a tripos examination.

In all the above examinations, if no candidates of sufficient merit present themselves, the scholarships may be diminished in value or withheld.

Generally speaking, scholarships tenable for three years will not be awarded to students who have resided for two or more terms at Newnham College, and scholarships tenable for two years will not be awarded to students who have resided for five or more terms at Newnham College. Scholarships will, however, be continued to students for a second, or for a second and a third year, if their circumstances make it important to them, provided that they are doing sufficiently advanced work and are making satisfactory progress.

Scholars are required to reside during the tenure of their scholarships; those elected before entrance are expected to begin residence in the October following their election, unless they have not then attained the age of 18, or unless they have obtained special permission to defer it for a year. A scholarship will only be awarded if the council is satisfied that the candidate's state of health is not such as to prevent her from profiting by a systematic course of study at Cambridge.

*The Goldsmiths' Scholarship.*—The Goldsmiths' Company offer for success in the Cambridge higher local examination to be held in June, 1895, a scholarship of £50 a year, tenable for three years at Newnham College, to a candidate whose means are inadequate to defray the cost of residence at the college. Candidates must send their names, together with a statement of circumstances, to Dr. Keynes, Syndicate Buildings, Cambridge.

No two of the above scholarships can be held at one time by the same person. Nor can any one be held with the Gilchrist or the Arthur Hugh Clough Scholarship.

Any candidate for a scholarship awarded by the council, signifying her wish not to receive the emoluments of the same, will, if successful, have the title and status of

a scholar without the emoluments; and any scholar signifying her wish not to receive the emoluments of her scholarship shall retain the title and status of a scholar.

Candidates for the scholarships awarded by the council in the local examinations are requested to give their names and addresses to the local secretary of their center during the week of the examination.

The council awarded some scholarships otherwise than by the above examinations to students who have begun residence and whose circumstances make it important to them. Information about all scholarships will be given by Miss Gladstone, Newnham College.

*Arthur Hugh Clough Scholarship.*—This scholarship has been founded by Mrs. Arthur Hugh Clough in memory of her husband. The scholarship, which is of the value of £40 a year, will be awarded annually to the best qualified candidate who has resided at Newnham College for three years and wishes to continue her studies there for a fourth year.

*Exhibitions.*—A certain number of exhibitions of five guineas a term are awarded to students resident in the college needing assistance, regard being had to intellectual qualifications, and a written statement of circumstances being required. The tripos fees of these exhibitioners may be paid by the college on the recommendation of the vice-principals. Exhibitions are tenable with scholarships.

*Loan Fund.*—There is a loan fund at the disposal of the college from which students of limited means may obtain help toward the payments of their fees. They will be expected to give adequate testimony respecting their intellectual qualifications and to make a statement of their circumstances.

Besides these mentioned above there are:

(1) A scholarship offered annually at the higher local for success in languages, mathematics, or science, to be held at either Girton or Newnham.

(2) A scholarship in memory of Professor Harkness, awarded triennially to a student of Girton or Newnham on the result of an examination in geology or palaeontology.

(3) Two studentships to enable women who have distinguished themselves in the tripos to continue their studies.

The following are the house rules for students:

Students are expected to consult the vice-principal before accepting invitations from friends, and also if they wish to make excursions in the neighborhood.

Students are expected to inform the vice-principal what place of worship they choose for regular attendance.

Students are expected to be at home, during the Michaelmas and Lent terms, at 6.30 p. m.; during the Easter term, at 8.30 p. m.; on Sundays, throughout the year, at 8.30 p. m.

Rules concerning domestic arrangements of the household are left entirely to the discretion of the vice-principals.

The arrangements in all the halls are very similar. These are the regulations for Sidgwick Hall. The "study hours" are those most convenient for work and during which most of the students are likely to be engaged in their studies; but no rules are laid down as to hours of work, exercise, etc. Every student uses her own discretion and works much or little, as she pleases; but if she were in danger of serious overwork the vice-principal would probably warn her against it, while on the other hand a very idle student might be requested to leave the college.

## HOUSE RULES, SIDGWICK HALL.

Students are requested to inform the vice-principal what place of worship they choose for regular attendance.

Students are expected to be at home, during the Michaelmas and Lent terms, at 6.30 p. m.; during the Easter term, at 8.30 p. m.; on Sundays, throughout the year, at 8.30 p. m.

On week days: Prayers will be at 8 a. m. Breakfast is immediately afterwards and is cleared away at 9. Any student requiring breakfast after 9 must get an order from Miss Gladstone. Miss Gladstone, Miss Tuke, or Miss Collier should be informed when any breakfast is taken upstairs. Luncheon at 12.30 and 1.15. Afternoon tea from 3 to 4.30. Dinner at 6.30; exact punctuality is expected. Evening tea at 7.45.

On Sundays: Breakfast at 9. Dinner at 1. If students are not likely to be home from church or chapel by 1, they should mention it to Miss Gladstone, and arrangements will be made for them. Tea at 5. Supper from 8 to 9.

The recognized hours of study are from 9 a. m. to 12.30; 3.30 to 6.30; 8 p. m. to 10 p. m. During these hours pianofortes and other musical instruments must not be played, and students are requested to avoid talking in the passages. All talking or other noises that might disturb those who wish to sleep should also be avoided after 11 p. m., and students are recommended to be in their rooms by that hour.

Nails may not be knocked into the walls except close by the ceiling. Drawing-pins may be used with very great care.

If wine or spirits are required they should be ordered through the housekeeper, and should not be kept in students' rooms without Miss Gladstone's permission.

No provisions can be supplied from the kitchen to students for teas in their rooms, except milk and butter. Notice must be given beforehand to the housekeeper when these will be required, and she will keep an account of the amount supplied, for students to pay at the end of each term.

Instruction is given partly by lectures delivered at Newnham College, partly by such lectures of the university and of the colleges as are open to students of the women's colleges.

The staff lecturers at Newnham are Miss A. B. Collier, Miss M. E. Rickett, and Miss P. G. Fawcett, mathematics; Miss E. M. Sharpley and Miss F. M. Stawell, classics; Miss M. Greenwood, Miss I. Freund, Miss E. R. Saunders, and Miss L. Sheldon, natural science; Miss A. Gardner, history; Miss J. Lee and Miss M. J. Tuke, modern languages.

Besides these, a number of members of the university lecture at Newnham, and the number of university and college lectures open to the students is very large.

Certain of the lectures of Newnham College, of which a list is published at the beginning of each term, are open to women, other than students of the college, who have attained the age of 17. Permission to attend them is required, and application for this should be made to Miss M. G. Kennedy (secretary). This permission, when once obtained, is valid for all subsequent courses of lectures, unless withdrawn by a special order of the council. The fee for the term, for each course, is from 1 to 2 guineas, according to the number of lectures delivered in a week. The first lecture of a course may be attended free of charge. The lists of lectures and tickets of admission are to be obtained from Messrs. Macmillan & Bowes, 1 Trinity street. Permission may similarly



be obtained to join the classes for practical work at the laboratories of the college, when these are not too large. The fees at the Balfour laboratory are 4 guineas a term for each class held three times a week and 3 guineas for other classes. The fees at the chemical laboratory are 4 guineas a term for each course. These fees are payable at the laboratories.

Here is the list of lectures for women in Cambridge, Lent term, 1895, to be delivered, generally speaking, at Sidgwick Hall, Newnham College:

| Subject.  | Lecturer.  | Place.  |
|---|--|---|
| Divinity <i>a</i> .....   | Miss Rickett.....  | Selwyn Gardens.<br>Clough Hall, Saturday, 4.30 p. m., beginning January 26. |
| Arithmetic <i>a</i> .....   | Miss McL. Smith.....   |   |
| English literature papers <i>a</i> .....                                    | Miss J. Kennedy.....   |   |
| Early English (for Group A) <i>a</i> .....                                  | Mr. Myers, Professor   |   |
| English literature <i>b</i> .....   | Raleigh, Professor<br>Jebb, Mr. L. Stephen, Mr. Ainger, etc. |   |
| English literature (Section A, mediæval and modern languages tripos, 1896). | Miss Earle.....  | Room C, Saturday, 10 a. m.  |
| French grammar and composition <i>c</i> .....                               | M. Boquel .....  | Room C, Wednesday, Friday, 4 p. m.  |
| French literature .....   | Mrs. Verrall .....   | Room B, Thursday, 12 m., Saturday, 11 a. m.                                 |
| German literature .....   | Dr. Breul.....   | Room C, Tuesday, Thursday, 11 a. m.   |
| Latin I, Cicero Orator .....  | Mr. Cook .....   | Room B, Wednesday, Saturday, 9 a. m.  |
| Latin II, Lucretius I and III. ....   | Mr. Wedd .....   | Room II, Tuesday, Thursday, 12 m.   |
| Latin III, Virgil Georgics (selections).                                    | Miss Stawell.....  | Room A, Tuesday, Thursday, 9 a. m.  |
| Latin IV (for Group B) and Latin prose composition.                         | .....do .....  | Room II, Monday, Wednesday, Friday, 5 p. m.                                 |
| Greek I, Thucydides VIII. ....  | Mr. Wyse.....  | Room B, Tuesday, Friday, 5 p. m.  |
| Greek II, Plato Theætetus .....   | Mr. Archer-Hind .....  | Room II, Monday, Wednesday, 12 m.   |
| Greek III, Demosthenes De Corona .....                                      | Miss Sharpley .....  | Room II, Monday, Wednesday, 9 a. m.   |
| Greek IV (for Group B) <i>a</i> .....                                       | .....do .....  | Room II, Tuesday, Thursday, 9 a. m.   |
| Greek translation papers .....  | Mr. Archer-Hind and Miss Sharpley.                           | Room A, Saturday, 12 m.   |
| Greek and Latin philology .....   | Mr. Moulton .....  | Room A, Wednesday, Friday, 4 p. m.  |
| Political economy .....   | Mrs. Marshall .....  | Room III, Tuesday, Thursday, 12 m.  |
| History of Greece (outlines), 431-146 B. C. ....                            | Miss Gardner.....  | Room B, Monday, Wednesday, 5 p. m.  |
| Papers in English history, 1509-1685 .....                                  | .....do .....  | Room B, Monday, 9 a. m.   |
| English constitutional history to 1485 ..                                   | Miss Bateson .....   | Room B, Tuesday, Thursday, 9 a. m.  |
| Electricity .....   | Miss Fawcett.....  | Room A, Tuesday, Friday, 12.15 p. m.  |
| Practical chemistry <i>d</i> .....  | Miss Freund.....   | Chemical laboratory, Monday, Wednesday, Friday, 11.15-1.15.                 |
| Elementary physics .....  | Miss Klaassen.....   | Balfour laboratory, Tuesday, Thursday, Saturday, 9 to 10 a. m.              |
| Morphology of vertebrates .....   | Miss Sheldon .....   | Balfour laboratory, Thursday, 11 a. m.                                      |
| Systematic botany .....   | Miss Saunders.....   | Balfour laboratory.   |

*a* These lectures will be given if required by a sufficient number of students. Apply immediately to Miss Gladstone.

*b* Full particulars of this course may be obtained from Messrs. Macmillan & Bowes, or from Miss Gladstone.

*c* Students attending this class should provide themselves with Random Exercises (Macmillan & Bowes) and Miss Austen's Persuasion.

*d* Women who are not students of Newnham College can only be admitted to the laboratory if there is room; they should apply immediately.

Small classes in mathematics will be formed. Women (who are not students of Newnham College) who wish to join them are desired to communicate with Miss Gladstone, Newnham College, as soon as possible.

Students preparing for logic and psychology in Group D should communicate at once with Miss Gladstone; students preparing for Group F are advised to attend Dr. Garrett's lectures on harmony. (See University Reporter.)

The lectures will begin, generally speaking, on Tuesday, January 15. It may be found necessary in some cases to alter the days and hours of lectures. If so, it will, if possible, be arranged at the first lecture of the course to be altered; any requests for alteration should be made at the first lecture.



Tickets of admission to these lectures (which should be given to the lecturer at the second lecture) are to be obtained from Macmillan & Bowes, 1 Trinity street, by any person who has attended these lectures in any past term or has obtained permission to attend them for the future. For this permission application should be made to Miss M. G. Kennedy, Selwyn Gardens. This permission when once obtained is valid for all subsequent courses of lectures unless it be withdrawn by a special order of the council.

For women who are not students of Newnham College the fee for each course of lectures delivered once a week is 1 guinea; for those twice a week,  $1\frac{1}{2}$  guineas, and for those three times a week, 2 guineas; and for the course in practical chemistry, 4 guineas. For students attending both courses of French lectures the fee is  $2\frac{1}{2}$  guineas. Information as to fees for mathematical classes may be obtained from Miss Gladstone. Any other deviation from the rule will be announced at the first lecture, which is free. The fee should be paid before the second lecture.

Strangers' tickets, each admitting to any single lecture, may be obtained by any person attending the lectures, on payment of 2s. 6d. for one ticket, or of 1 guinea for 9 tickets.

There are in the college 9 lecture and class rooms, and there is a chemical laboratory. In the town, close to the university laboratories and museums, is the chemical laboratory for biological and physical studies, of which the building and the site are a freehold of the college.

In the grounds is a small observatory, with an equatorially mounted telescope. An old student has been appointed to the post of curator.

The college library is in Old Hall. It contains about 8,000 volumes, and is carefully arranged for reference and well supplied with the books that are most commonly needed by the students.

Between the university and the college, it may be said that the Newnham students are amply provided with all they need for their studies.

At Newnham, as at Girton, clubs and societies flourish, and the aims of these are much the same in both colleges. The debating society plays a rather more important part here, and the debates are more distinctly regarded as special festivals. Some of the speaking is very good. There is also a political society, which, like the local parliaments so popular in this country, follows in its proceedings the rules of the House of Commons. The society meets every Monday, from 7 to 8 p. m., throughout the October and Lent terms. At the beginning of the college year a speaker, deputy speaker, and secretary are elected by a general meeting. There are three parties: Liberal, Unionist, and Conservative, and there are a few independents. The parties take it in turn to be in office, an amicable arrangement which, unfortunately, would not suit the original assembly. Their turn of office lasts one year. Each party has its leader, and the party in power has its ministry, chosen by the prime minister at the beginning of the year. This party introduces bills. Private members may bring forward motions between the division on the bill and the introduction of the next. This interest in politics seems somewhat peculiar to Newnham, but now that the part played by women in public affairs is increasing so rapidly in England, it is a most valuable training.

At Newnham, as at Girton, each tripos has its club, which meets two or three times a term. Newnham students also subscribe to the Women's University Settlement, and elect a representative on the committee.

There is a Sunday Society, which meets Sunday afternoons. At each meeting a paper is read on some religious or philosophical subject, or a biography of some great man is given. Hockey, fives, and tennis clubs also flourish.

Each hall has societies of its own, such as literary, Shakespeare, musical societies, etc.

Owing to its situation nearer to Cambridge, it is easier for Newnham students to take part in events of interest in the town; to attend the beautiful musical services at King's College Chapel, concerts, etc., and to pay visits in town. Still the center of interest lies in the college itself, with its opportunities for work, for social intercourse, outdoor life, and formation of life-long friendships. For women as for men students, the college comes first, and the university second; yet for both the horizon would be seriously narrowed, the stimulus greatly lessened, if they ever were to become separate institutions, instead of part of one great whole—the University of Cambridge.

#### VII. UNIVERSITY AND COLLEGE.

A peculiarity of the older English universities is the distinction between university and college. The university as a whole may be said to be divided into two parts, the college and the university proper. Each college is an entirely separate organization, as is the university proper, but it has a general oversight of the colleges. The college has buildings for residence for students, fellows, and lecturers, and the usual arrangement of these buildings is about a square called a quadrangle, or, popularly, "quad." At Cambridge these quadrangles are generally designated as courts, and when there are many each is designated by a special name, e. g., at Trinity there is the Fellows' Court, Vergill's Court, etc. There are 18 colleges for men at Cambridge, and each college has its own faculty, regulations, and characteristics. Some are renowned for scholarship, others for athletics; some take higher social position than others. Every college has its own chapel, dining hall, library, combination room (a sort of general meeting room for the fellows), and lecture rooms. Each college is like a small university inside the greater one, except that—and this is very important—it does not examine or grant degrees. College examinations are held generally once a year, but these are to test progress, and in no way affect the result of the final examinations. In matters of discipline the college and university divide the authority. Each college makes regulations for its own students, but there are certain general regulations laid down by the university which must be observed by all its members.

There are a certain number of students who are not attached to any

college, and are known as noncollegiates, but they are under a special board of direction and have to observe certain regulations.

The university is a body for government, for degree giving, and for the supplying of a certain number of instructors. The instructors of the university are professors and readers; their lectures are usually open to the public without fee. The government of the university is vested in a chancellor (at present the Duke of Devonshire), a vice-chancellor, elected from one of the heads of houses, and a senate, to which belong all doctors of divinity and masters of arts, law, and surgery, who keep their names on the register for a certain number of years.

It is very important to remember in connection with Girton and Newnham that their members are not only students of a woman's college, but also students at Cambridge. They live in the atmosphere of a great and ancient university and inherit its traditions. The course of work is that laid down by the university, the examinations are appointed and conducted by the university, but it is the individual college that admits them, supervises them, and makes arrangement for their residence. Much the same holds good for the men's colleges.

It is the graduate women to whom the university acts as a step-mother. As they have no degree, they have no manner of position in the university. Men who proceed to the degree of M. A. and keep their names on the books by payment of an annual sum, form part of the university senate, and thus share in the government of the university. This is a privilege Cambridge seems unwilling to grant her daughters, although women graduates of London, Victoria, Wales, and the Scotch universities are put in the same position as men. Cambridge will probably be very slow to make the change, but there are some concessions that might at once be granted to women. Chief of these is free admission to the university library. M. A.'s of the university have a right to read there when they please and to take out books. The most distinguished woman graduate can only get books if a man is kind enough to procure them for her, and only reads in the library on the same conditions as any other lady who has no connection with the university. The excuse is made that the library is very insufficiently housed and the rooms are not well adapted for students. Even male undergraduates are far from welcome, and are much restricted in their hours of reading. The rule is that they may use the library between 1 and 4, a time when they believe every undergraduate who respects himself will be engaged in some athletic exercise. There is, however, a provision that they may be admitted at other hours on presentation of a card which will be given them if armed by a letter from their tutor to the librarian.

For persons who are not members of the university the regulations say that they shall be required to fill up a form of application and to



present it to the syndicate, together with letters from two members of the senate certifying from personal knowledge that the applicant is a student of some specified subject, and is a fit and proper person to be admitted to the library for the said purpose. Applications accompanied by such letters of recommendation are considered by the syndicate at two successive meetings. Tickets of admission are not granted to persons under 21 years of age unless they are reading for a tripos examination.

The only concession allowed a student of Girton or Newnham is that, instead of making application under the above rule, she may present to the syndicate with her form of application a certificate signed by the principal of her college and countersigned by a member of the senate, stating that she is a student of such college, is reading for the tripos examination, is studying some specified subject, and is a fit and proper person to be admitted to the library for the purpose of study. If the application is approved a ticket is given, and for this, if for a duration of one year, the sum of £1 1s. must be paid.

As a matter of fact, any one who wishes to read for a serious purpose is sure to be admitted, but the process may be a tedious one. However, as every college has its own library, the university library is not really much needed by undergraduates, and the books are so arranged that it is not a convenient place for writing. It is chiefly used by M. A.'s who take books home and persons who wish to study some rare old manuscript or book that may not be taken out. It is one of the libraries to which publishers are bound to send a copy of every book published, and, considering the pressure on the space, this is a somewhat doubtful blessing.

For the museums and laboratories there are special arrangements, which are dealt with elsewhere. The great disadvantage of the position of women at Cambridge is that they are too much dependent on the kindness and helpfulness of individuals, and though this kindness and help are seldom wanting, yet, now that the number of women students is increasing so much, it would be of the greatest value to secure a few more rights, even at the sacrifice of some special privileges.

#### VIII.—THE RECORD OF TWENTY-FIVE YEARS.

It is now twenty-five years since women began to study at Cambridge, and it is possible after the lapse of time to draw some general conclusion as to the abilities of the female students, and to make some predictions as to the future. During these years no fewer than 669 women took honors in the tripos examinations, and of these 191 took mathematics and 165 classics, a sufficient proof that women have by no means shirked those studies on which the older universities so specially pride themselves. Still more remarkable is the fact that out of this number 136 were placed in the first class. This is nearly one-fifth of the whole number, and the proportion of second class is also large.



These statistics are of importance, because they prove, what it was at first very difficult to make English people believe, that women are quite as capable of severe and continuous study as men. With the exception of law (and here one was second), theology, and oriental languages, women have headed the class lists of every tripos. One of the most notable successes was that of Miss Traveth, who in the mathematical tripos was classed above the senior triangler. Miss Ramsey (now Mrs. Butler) headed the classical tripos list. Miss E. P. Hughes, principal of the Cambridge training college, headed the moral science list; one or two women have obtained first places in natural science. Miss Gardner (history lecturer at Newnham) headed the list in history, and in modern languages the superior successes of the women are so common as to be hardly a subject of remark. At first there was an impression—doubtless a correct one—that it was only specially gifted women who pursued these studies, but it is now becoming a very common thing for girls of not more than average abilities to proceed to college. Still the percentage of failures continues small, and the number of high classes so great that last year Newnham stood third of all the Cambridge colleges in its record of honors. Thus far the field is undoubtedly won.

As to the careers of students when they leave college there is among some people a feeling of disappointment. But this is due to the fact that professions in England are only slowly being opened to women, and that each opening is generally won by the struggle of one or two courageous women. This takes time. Among distinguished alumnae of Cambridge may be mentioned Prof. C. A. Scott, now at Bryn Mawr College; Miss Jane Harrison (on whom the University of St. Andrews has just conferred the honorary degree LL. D.), a brilliant and learned lecturer on Greek archæology and one of our first authorities on the mythology of vases; Miss Eugenia Sellers, who has also done good work in Greek archæology; Miss Annette Benson (M. D., of London), now senior physician to the Kama Hospital at Bombay, and Miss E. M. Anderson, Government inspector of workshops and factories. Very many hold important posts as head mistresses, assistant mistresses, and lecturers. Excellent work has been done both in science and history by old students of both colleges; some have taken up philanthropic work, and carry into it a knowledge and training that prove invaluable. Some pursue journalism or other literary work; a few have found posts at the Greenwich Observatory. Undoubtedly the majority take up teaching, and here their influence has brought about a complete revolution in the girls' schools. Many are married and pursuing no special occupation; but here, as in every position, the advantages of culture are felt. In fact, it may be said that while results hitherto have more than justified the hopes of the founders, they may confidently look forward to a far more brilliant future when all the still existing barriers have fallen.

## LODGING AND BOARDING.

The English lodging system is a plan of living that has been praised, by most people that have tried it, for its practical application of comfort and convenience to the needs of a short sojourn. The general plan is to rent a parlor and bedroom. The parlor serves as dining room also. The rooms are rented at a fixed price, and are cared for by the landlady. The food is purchased by the people who occupy the rooms, according to their own liking, is cooked by the landlady, and all the work of presenting it upon the table and caring for it in the house is done by her. One can have an expensive or inexpensive bill of fare, and can consult one's own tastes, which is of course a very important particular. If desired, the landlady will make the purchases for the people also, according to directions given her, and present the bill at the end of each week for the articles which she has purchased. People living in lodgings have, of course, a certain independence which is not found in other places. They are quite free from social obligations, and can choose their own hours and approximate the independence of entirely private life.

The expenses of this way of living vary, of course, with the situation and furnishing of the rooms and the tastes of those who employ it. In one case two rooms on the third floor of a dwelling house were taken. The situation was conveniently central; the parlor overlooked a small park and the bedroom adjoined it at the back. The rent was £1 5s. a week. The rooms were completely furnished; each had a fireplace; the parlor contained a large central table, a bookcase, sideboard, comfortable couch, and other convenient articles of furniture. A short distance farther away from the central part of the city, and in not quite so pleasant a street, a lady had a parlor and bedroom on the second floor very comfortably furnished for 18s. a week. This includes, of course, attendance, which means the entire care of the rooms, attendance to the door, the cooking and care of the food, bringing it to the room and removing it again. In one case a lady living alone kept careful record of her expenses. She found that in a fall term all expenses except the rent and attendance amounted to 15s. a week; in the winter term, 14s. 6d., and in the summer term about the same. This included heat and light and laundry, and all living expenses except the rent and attendance. Another young lady, who rented unfurnished rooms, which she made most charming by her simple and inexpensive methods, found that her expenses, including everything, came to 30s. a week. It is more than likely that ladies coming from America to Oxford for purposes of study will, in the main, choose this method of living. They are chiefly women of some maturity, and, as they are quite able to take care of themselves, do not so much need the social protection afforded by life in a hall. In case such women as these come, they will certainly

find themselves more free to enjoy the social advantages of this delightful city if they are quite independent.

It is sometimes possible to obtain boarding in the homes of professors or other gentlemen connected with the university. There will be, of course, a great deal of pleasure to be derived from the associations that will result from such an arrangement as that, and in case a letter of introduction or other means of association brings about such a plan as this, it is very much to be preferred, especially for younger students. It is expected that £2 a week will be the usual price. Boarding can be found in other families at a less price, sometimes as low as a guinea a week.

#### THE CLIMATE.

The climate of England, and especially of English counties, has been very much abused, perhaps more than it deserves. Hawthorne seems to have been of this opinion, and it will be remembered that he declared quite in favor of the summer weather, and says that in England "the really good summer weather is the very kindest and sweetest that the world knows."

It seems to be the fashion for the people from the United States to rail at the climate in nearly all the European countries. The complaint always is that it is relaxing, but as the majority of travelers coming to the Old World are from the Northeastern States, where the air has a special keenness and invigorating zest, it is not strange that the moisture-laden atmosphere in countries whose shores are touched by the influence of the Gulf Stream should be found at first debilitating.

It is said that if Oxford and Cambridge had not been situated exactly as they are one would certainly have destroyed the other, but as both are in the worst climate to be found in England there is no choice. But after all, these criticisms certainly are exaggerated. While there seems to be a great deal of rainy weather, the amount of rainfall is not more than the average. The whole amount for the year is but 26 inches, while for the different months it is as follows:

|                |       |                 |       |
|----------------|-------|-----------------|-------|
| January .....  | 2.358 | July .....      | 2.588 |
| February ..... | 1.652 | August .....    | 2.388 |
| March .....    | 1.604 | September ..... | 2.626 |
| April .....    | 1.736 | October .....   | 2.859 |
| May .....      | 2.079 | November .....  | 2.211 |
| June .....     | 2.529 | December .....  | 1.954 |

People live constantly, I believe, in the expectation of rain; but when it comes it is more a soft, gentle mist, floating doubtfully downward, than any direct or decisive downpour. The real shower perhaps is not more frequent than elsewhere. So far as heat and cold are concerned, the extremes are very much modified.

In the gardens of the colleges the grass is green through the winter, and is never, I believe, parched by the heat of summer, and the English people must be indebted in part at least to the equability of their



climate for the national habit of taking long walks for the sake of exercise. There is scarcely a day in the whole year when it would not be perfectly comfortable at noon for the pedestrian, and the long twilight of summer adds to the available opportunities for this delightful mode of increasing physical vigor. In winter, no further means of supplying heat for the household than the fireplace has been found an absolute necessity. There is a fireplace in every room, its use is universal, and sufficient even in the coldest weather. People who have been accustomed to the pervading furnace heat or steam heat will find the fireplace not entirely adequate, perhaps, but there is no use in railing against this beloved institution, and one can easily make the best of it by piling on the coals.

#### OTHER UNIVERSITIES IN GREAT BRITAIN THAT ADMIT WOMEN.

London University (which is really only an examining and degree-giving body) puts men and women on exactly the same footing; so does Victoria University, the headquarters of which are at Manchester, but which consists of (1) Owen's College, Manchester, (2) University College, Liverpool, and (3) Yorkshire College, Leeds. Students must study at one of these three colleges; women study with men in almost all cases, but there is no facility as yet for women's medical studies in connection with Victoria University, though the medical degrees are open to them. Durham University has this year opened all its degrees to women except the theological. It requires residence, but this need not be at Durham, but may be at one of the other affiliated colleges, e. g., that at Newcastle-on-Tyne. So much for the English universities. Then there is Wales, which only came into existence last year, and consists of a federation of the three university colleges of Bangor, Cardiff, and Aberystwith. The charter states that men and women shall be on an equality in all respects, that every part shall be open to men and women alike, and that there must be some women on the governing body. Last year all the Scotch universities opened their degrees to women, and I believe they are in all respects on an equality with men. In Ireland, the Royal University of Ireland, which, like London, is only an examining body, confers degrees on men and women alike. Trinity College, Dublin, excludes them from degrees and examinations and from instruction.





## CHAPTER XVIII.

### EDUCATIONAL STATUS OF WOMEN IN DIFFERENT COUNTRIES.<sup>1</sup>

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TOPICAL OUTLINE.—*Introduction: The woman question in general.—The college-bred woman: Statistics of womans' colleges, 1893-1894, compared with 1891-1892.—Women's colleges (Vassar, Smith, Wellesley, Bryn Mawr); views of Misses Burstall and McCabe.—Woman's development in Eastern, Western, and Southern States.—The education of women in different countries (Great Britain, France, Belgium, Netherlands, Italy, Russia, etc.) Citations from official reports, school laws, and other authorities.—Women in the professions: Medicine, law, theology; regulations in various countries.—Woman as a promotive force: School legislation in the different States and in several countries. Citations from school laws and constitutions.—Marriage rate of college-bred women in 1880 and 1892.—Bibliography.*

#### INTRODUCTION.

The interest manifested of late years in the educational development of women in various fields of human endeavor has caused the publication of much valuable information appertaining to that subject, and it might seem that the subject was exhausted. Yet the many inquiries addressed to those engaged in employments open to women indicate that there are still phases of this question which have not been placed within the reach of individuals seeking for authoritative information.

Hence the effort is made in this chapter to group together statements emanating from foreign and home authorities which may answer such queries to a certain extent. The education of women in the United States has been subordinated to the development and conditions in foreign countries; the subject from the home standpoint has been fully treated in reports of associations and in addresses before national and international councils and federated clubs.

The statements from foreign countries, and in part for the United States, have been compiled from official documents, or from reports and essays which cite freely from laws, decrees, etc., promulgated by the different governments.

In speaking of the so-called woman's movement, Miss Frances Power Cobbe, the author and keen thinker, says:

"There have been many movements in the world<sup>2</sup>—some of them recorded in history as portentous events, others forgotten within a few years of their occurrence—which may each be compared to a wave on the surface of the Mediterranean. From the insignificant ripple to the wave-high billow flecked with foam and breaking in cataclysms, they have arisen only to subside to their original level, leaving the boundaries of land and sea where they have stood for a thousand years. There are other movements, on the contrary, which resemble the tides of the ocean, wherein each wave obeys one uniform impetus, and carries the waters onward and upward along the shore.

"Of all the movements, political, social, and religious, of past ages, there is, I think, not one so unmistakably tidelike in its extension and the uniformity of its impulse as that which has taken place within living memory among the women of almost every race on the globe. Other agitations, reforms, and revolutions have pervaded and lifted up classes, tribes, nations, churches. But this movement has

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<sup>1</sup> Prepared by Miss Frances Graham French.

<sup>2</sup> The Woman Question in Europe, by Theodore Stanton. Introduction.

stirred an entire sex, even half the human race. Like the incoming tide also, it has rolled in separate waves, and each one has obeyed the same law, and has done its part in carrying forward all the rest. The waves of the higher education of women all over the world; the waves which lifted women over the sand bars of the medical, and (in America) of the legal and clerical professions; the waves which seated them on the school boards and boards of guardians of the poor; the wave which gave them the English municipal vote; the wave which restored to married women a right to their own property—every one of these waves, great and small, has been rolled forward by the same advancing tide."

The majority of thinking persons now concede that with the progress of human events there has naturally come a broadening of woman's sphere. Hence to suitably fill one's position in whatever sphere of action, to successfully contend with others in the struggle for a livelihood which now oftentimes comes upon the woman of the family, it is generally conceded that there is necessity for practical rather than theoretical knowledge. The domestic-economic side of life has been the one most thoroughly understood by the women of all nations until within a short period; but to-day, when equality of mind and business ability of men and women is conceded by the broad minded, it remains simply to state facts bearing upon the outcome of the different efforts to so develop the woman that whatever sphere she may be called upon to occupy, be it wife, mother, bread winner, in humbler positions or in the professions, she will learn to make the most of the God-given talents, and while still exerting a quiet influence in the home or business circle, she will still continue to remember that a womanly woman is a desirable factor in the world's onward movements.

A word of suggestion to those who enter the arena of a working life is here cited from *Woman's Work and Worth*, by W. H. Davenport-Adams. He says:

"Educated women, however, who seek employment must remember that man's bread is earned only by the sweat of his brow; that if they descend into the arena they can not hope for success unless they accept the conditions under which the athlete necessarily strives. They must be prepared for hard work, for persevering work, and not suppose that because they are women the race will be made easier to them than to men. 'Men will run alongside with them, struggling for the same prize,' and as men have generally an advantage in the start, they must brace up every energy and bring into play every faculty to avoid defeat and insure victory. They must have exactness, punctuality, patience, endurance, thoroughness. Superficial knowledge will not do; slipshod, hasty, or imperfect work will not do; weariness, apathy, or disgust before the battle is half won will not do. Whatever they undertake they must go through with it to the end. They must never put forward any work of which they can not honestly say, of which they do not in their own heart believe, that it is done as well as they can do it, that it is in very truth their ripest and best. They must be on their guard against the emotional elements of their nature, against the sudden impulse which makes an eager beginning only to come to an abrupt pause. This is their special danger, and it is here, if anywhere—no doubt through unwise training and the influence of old traditions—that the 'inferiority' of women lies. Experienced teachers tell us that girls equal, frequently excel, boys in quickness of intelligence, but fall below them in power of application. But it is just this power of application, this 'staying power,' that wins the victory.

"The primary use of all knowledge, to adopt a saying of St. Bernard's, is to build ourselves up (*œdificari*); its secondary use is to build up others (*œdificare*). We have sufficiently enlarged on the advantages that each one of us derives from the adequate culture of one's faculties, and we have pointed out the beneficial influence that one so cultivated and disciplined is able to exercise on one's immediate circle. But there is yet another and more material use of knowledge, which must neither be ignored nor despised, when we treat it as a means of securing a respectable livelihood. Until within the last few years, of whatever knowledge women might acquire, general or special, she could make little profit in this way; almost every vocation

was closed against her by custom and prejudice. It is surprising that she so long consented to this arbitrary injustice; yet perhaps not surprising when we remember the ridicule and obloquy accumulated on the few adventurous ladies who first ventured to protest against it. They were informed that woman's true sphere (which few women have ever doubted) was home; that they were not to trespass on the privileges and rights of men; that their grand functions were those of the wife and the mother, and that contact with the world in 'a business capacity' would sully and degrade them. It was useless to argue that women might be wives and mothers and yet find leisure for much honorable work; that many felt themselves specially qualified for special callings; and that for the unmarried, if of gentle birth or refined intellect, the existing channels of profitable activity were wholly inadequate. The storm raised by jealousy, ignorance, and bigotry continued to rage, and though it has to some extent spent itself most uselessly, its mutterings at intervals are still 'unpleasantly audible.'

## THE COLLEGE-BRED WOMAN.

A historical résumé of the conditions attendant upon the education of women in the United States would be of inestimable value, but that work has been attempted by well-known writers, and quite successfully, too, so that it is sufficient to simply present statements from the latest books and essays on this subject, simply prefacing such citations by the latest obtainable statistics of women attending college courses. Of the 415 colleges reporting to this office in 1889-90 there were 256 coeducational in character (in some or all departments); the number of women students in 1891-92 was more than 10,000. Of the 158 colleges for women reporting, 14<sup>1</sup> have been placed in a group by themselves, because the admission requirements, standards of instruction, and general organization accord with those that have long been characteristic of colleges of liberal arts. Their work is essentially collegiate, in which respect they differ from the older seminaries for women, which, while making more or less provision for the distinctive studies of the college curriculum, are schools for general instruction.

*Colleges for women, 1891-92, with additions for 1893-94.*

## DIVISION A.—PROFESSORS AND STUDENTS.

|  | North<br>Atlantic<br>Division. | South<br>Atlantic<br>Division. | North<br>Central<br>Division. | Western<br>Division. | United<br>States in<br>1891-92. | United<br>States in<br>1893-94. |
|--|--------------------------------|--------------------------------|-------------------------------|----------------------|---------------------------------|---------------------------------|
| Institutions.....  | 11                             | 1                              | 1                             | 1                    | 14                              | 16                              |
| Professors and instructors:                              |                                |                                |                               |                      |                                 |                                 |
| Preparatory department—                                  |                                |                                |                               |                      |                                 |                                 |
| Male.....  | 2                              | 10                             | 0                             | 0                    | 12                              | 1                               |
| Female.....  | 6                              | 17                             | 0                             | 12                   | 35                              | 26                              |
| Collegiate department—                                   |                                |                                |                               |                      |                                 |                                 |
| Male.....  | 157                            | 12                             | 15                            | 5                    | 189                             | 225                             |
| Female.....  | 181                            | 11                             | 2                             | 7                    | 201                             | 243                             |
| Total—   |                                |                                |                               |                      |                                 |                                 |
| Male.....  | 165                            | 14                             | 15                            | 5                    | 199                             | 232                             |
| Female.....  | 191                            | 18                             | 2                             | 19                   | 230                             | 281                             |
| Students:  |                                |                                |                               |                      |                                 |                                 |
| Preparatory department.....                              | 95                             | 285                            | 0                             | 169                  | 549                             | 265                             |
| Collegiate department.....                               | 2,427                          | 75                             | 45                            | 11                   | 2,558                           | 3,463                           |
| Graduate department.....                                 | 78                             | 0                              | 0                             | 0                    | 78                              | 115                             |
| Total.....   | 2,874                          | 360                            | 45                            | 180                  | 3,453                           | 3,883                           |
| In collegiate department pursuing<br>courses leading to— |                                |                                |                               |                      |                                 |                                 |
| A. B. degree.....  | 1,271                          | .....                          | 20                            | 2                    | 1,293                           | 2,238                           |
| Ph. B. degree.....                                       | .....                          | 0                              | 2                             | 0                    | 2                               | 33                              |
| B. L. degree.....  | 252                            | 0                              | .....                         | 9                    | 301                             | 491                             |
| B. S. degree.....  | 352                            | 0                              | .....                         | 0                    | 352                             | 162                             |
| In pedagogical course.....                               | 20                             | 0                              | .....                         | 0                    | 20                              | 29                              |
| In special or partial courses.....                       | 319                            | .....                          | 23                            | 0                    | 342                             | .....                           |
| Freshmen prepared in—                                    |                                |                                |                               |                      |                                 |                                 |
| Preparatory departments.....                             | 27                             | .....                          | .....                         | 2                    | 29                              | 51                              |
| Private preparatory schools.....                         | 355                            | .....                          | .....                         | 0                    | 355                             | 335                             |
| Public high schools.....                                 | 687                            | .....                          | .....                         | 2                    | 689                             | 490                             |
| Private study.....                                       | 17                             | .....                          | .....                         | 0                    | 17                              | 24                              |

<sup>1</sup> This number was increased to 16 in 1893-94, as additions to the table indicate.



Little preparatory work is done in these institutions, and, as is noticed in the table, the greater proportion of students seek the A. B. degree. This number nearly doubled in 1893-94, and there was marked increase in the number desiring the Ph. B. degree.

In the colleges of Division B the numbers do not increase in such proportion; the graduate students have nearly doubled, however—78 in 1891-92 to 154 in 1893-94.

*Colleges for women, 1891-92, with additions for 1893-94.*

DIVISION B.—SUMMARY OF STATISTICS OF PROFESSORS AND STUDENTS.

|   | North<br>Atlantic<br>Division. | South<br>Atlantic<br>Division. | South<br>Central<br>Division. | North<br>Central<br>Division. | Western<br>Division. | United<br>States<br>in<br>1891-92. | United<br>States<br>in<br>1893-94. |
|---|--------------------------------|--------------------------------|-------------------------------|-------------------------------|----------------------|------------------------------------|------------------------------------|
| Institutions.....                                     | 13                             | 48                             | 53                            | 28                            | 2                    | 144                                | 150                                |
| Professors and instructors:                           |                                |                                |                               |                               |                      |                                    |                                    |
| Males.....  | 61                             | 123                            | 102                           | 67                            | 0                    | 353                                | 419                                |
| Females.....  | 172                            | 443                            | 452                           | 307                           | 29                   | 1,403                              | 1,528                              |
| Students:   |                                |                                |                               |                               |                      |                                    |                                    |
| Primary department.....                               | 98                             | 668                            | 1,140                         | 212                           | 32                   | 2,150                              | 1,965                              |
| Preparatory department.....                           | 538                            | 668                            | 1,012                         | 561                           | 36                   | 2,815                              | 4,533                              |
| Academic department.....                              | 860                            | 953                            | 928                           | 732                           | 54                   | 3,527                              | .....                              |
| Collegiate department.....                            | 551                            | 3,844                          | 4,164                         | 1,225                         | 16                   | 9,800                              | 10,395                             |
| Graduate department.....                              | 9                              | 24                             | 32                            | 11                            | 2                    | 78                                 | 154                                |
| Total.....  | 2,457                          | 6,752                          | 8,086                         | 3,717                         | 140                  | 21,152                             | 19,721                             |
| In collegiate department pursuing courses leading to— |                                |                                |                               |                               |                      |                                    |                                    |
| A. B. degree.....                                     | 164                            | 1,216                          | 726                           | 318                           | 5                    | 2,429                              | 2,572                              |
| Ph. B. degree.....                                    | .....                          | .....                          | .....                         | 8                             | 4                    | 12                                 | .....                              |
| M. E. L. degree.....                                  | 70                             | 399                            | 721                           | 103                           | 3                    | 1,295                              | 1,753                              |
| B. S. degree.....                                     | .....                          | 113                            | 430                           | 62                            | 4                    | 600                                | 640                                |
| Other first degrees.....                              | 51                             | 78                             | 209                           | 208                           | .....                | 546                                | 271                                |
| In pedagogical course.....                            | 8                              | 127                            | 261                           | 7                             | 6                    | 409                                | 554                                |
| In music.....   | 728                            | 3,418                          | 3,386                         | 1,422                         | 94                   | 9,048                              | 9,009                              |
| In art.....   | 299                            | 1,078                          | 1,118                         | 466                           | 70                   | 3,051                              | 3,054                              |
| In special or partial courses..                       | 249                            | 805                            | 572                           | 307                           | 10                   | 1,943                              | .....                              |

DEGREES CONFERRED.

| Degrees.              | North<br>Atlantic<br>Division. | South<br>Atlantic<br>Division. | South<br>Central<br>Division. | North<br>Central<br>Division. | United<br>States in<br>1891-92. | United<br>States in<br>1893-94. |
|-----------------------|--------------------------------|--------------------------------|-------------------------------|-------------------------------|---------------------------------|---------------------------------|
| M. E. L. or B. L..... | 13                             | 29                             | 232                           | 48                            | 322                             | 398                             |
| A. B.....             | 23                             | 181                            | 112                           | 41                            | 357                             | 719                             |
| B. S.....             | 2                              | 34                             | 52                            | 13                            | 101                             | 188                             |
| A. M.....             | .....                          | 14                             | 61                            | 16                            | 91                              | 85                              |
| Mus. B.....           | 8                              | 30                             | 38                            | 33                            | 109                             | 128                             |
| B. Paint.....         | 1                              | 8                              | 25                            | 1                             | 35                              | 26                              |
| M. L. A.....          | 3                              | .....                          | .....                         | 2                             | 5                               | 2                               |
| L. S.....             | 3                              | .....                          | .....                         | .....                         | 3                               | 2                               |
| L. A.....             | 4                              | .....                          | .....                         | .....                         | 4                               | 2                               |

There were nearly twice as many who received the A. B. degree in 1893-94 as in 1891-92; 719 in the last year to 357 in the first. Then 3 students obtained the Ph. D. and 9 received an honorary A. M. The studies included Latin grammar, Cæsar, Cicero, Virgil, Livy, Horace, Tacitus, Juvenal, Greek grammar, Xenophon, Homer, Herodotus, French and German (advanced and elementary), psychology, ethics, logic, metaphysics, political economy, geometry (plane, solid, and analytical), algebra (to and beyond quadratics), trigonometry, and calculus, physics, chemistry, botany, zoology, geology, astronomy, history (other than that of the United States), English literature.

The number of scholarships was 161 in 1891-92 and 249 in 1893-94; the number of fellowships, 9 in 1891-92, increased to 15 in 1893-94; number of endowed professorships, 6 in the former year, no report for the latter. For additional information as to property, income, benefactions, etc., reference is made to the tables of colleges for women, in volume 2 of this report.

An interesting commentary on the higher education of women in the United States is made by Miss Sara A. Burstall, B. A. (University of London), a scholar of Girton College, Cambridge, England, and mistress at the North London Collegiate School for Girls. Miss Burstall was one of the five teachers sent by the Gilchrist trustees to America during the Chicago Exposition to study educational institutions. From her book, *The Education of Girls in the United States*,<sup>1</sup> the following extracts are made: She says that "in America, as in England, university education for women has been modeled on the system already existing for men. \* \* \* The English distinction between a college and a university does not obtain in America; there the words are used indiscriminately for degree-giving bodies. \* \* \* The system of certain prescribed and certain elective subjects still widely prevails. \* \* \* This system appears to encourage superficiality, \* \* \* but an admirable custom is that of post-graduate work. \* \* \* For the sake of post-graduate study, students often work at two or even more universities, as in Germany. \* \* \* The poorer colleges thus have an important work in reaching persons who, but for their influence, might never have any higher education at all, and who may be stimulated to go on to a real university when once they have tasted the sweets of learning. \* \* \*

"The most important institutions giving a college education to women are the separate women's colleges, founded by private munificence, having their own charters to give degrees and their own independent staff of teachers, the head being in almost every case a man. The four largest and most esteemed of these are Vassar, Wellesley, Smith, and Bryn Mawr; of these we give separate accounts below. The great universities and colleges for men have not been as a rule open to women, though at the present time signs of a change are clearly visible. Thus 'annexes' have grown up at Harvard, Cambridge,<sup>2</sup> and Columbia, New York.<sup>3</sup> These are organizations for giving women the college education men have at these seats of learning. Some of the privately endowed universities recently founded are, however, open to women on exactly the same conditions as to men; the chief of these is Cornell, Ithaca, N. Y. We much regret that time did not allow of our visiting this institution, one of the most important in connection with the question of coeducation. The new University of Chicago has followed the example of Cornell. The Western State universities are also open to women; chief among these is the University of Michigan, which has influenced the university education of women in America more than any other institution.

"There is much discussion among American educators as to whether it is better to send a girl to a separate women's college or to a coeducation university, and public opinion is very strong on both sides. The matter does not turn on the question of securing the higher and most advanced teaching, though that is considered, but rather on social conditions. Some persons object to the conventual character of the women's colleges, isolated as they are from the outside world; others think the calm and freedom from the distractions of social life a positive advantage. We shall, however, discuss this more fully in the chapter on coeducation.<sup>4</sup> There is at least one other great institution admitting women, which, though not strictly a university, for it gives no instruction in ancient languages, is yet of very high rank and of great importance—we mean the Massachusetts Institute of Technology. It grants the B. S. degree, and women have studied there for some years, principally natural science and economics; some have studied architecture.

"All the chief women's colleges require an entrance examination somewhat similar

<sup>1</sup> *The Education of Girls in the United States*, by Sarah A. Burstall, London, 1894.

<sup>2</sup> Radcliffe College.

<sup>3</sup> Barnard College.

<sup>4</sup> It is not intended to touch upon coeducation and coeducational institutions, as this subject has been treated elsewhere; but inasmuch as most of the writers from whom citations are made deal with both phases of college training, it has been found impossible to avoid encroaching upon that phase of education.

to the matriculation examination of the University of London, but not so difficult. Vassar, Wellesley, and Smith accept the certificates of certain schools as substitutes for the examination; Bryn Mawr recognizes no school certificate, only that of the Harvard examinations for women being taken. Girls seem to enter at about the same age as in England, possibly on the whole when somewhat younger; 16 is the limit fixed by the college authorities. The students seem as mature in appearance and demeanor as our English college women, but the American colleges themselves seem rather to resemble boarding schools. The whole morning is taken up with recitations, as in school; the girls have little free time, the rules prescribe retiring to rest at a fixed hour, etc.; there is a weekly holiday, Saturday or Monday, and exeats for the week end are easily and frequently obtained. Some colleges adopt the cottage system wholly or in part; the students live in small groups, each under the charge of one lady, who is in the position of a mother. There is something very sweet and beautiful in these little homes; they are doubtless of the greatest value in making college life for a certain type of girl.

"We heard much from some American educators of the exciting and in some cases injurious effect of a large number of girls living together in one building. This was said to generate an atmosphere of nervous excitement, the noise of the crowded dining hall at meals being particularly bad. The influence of the mass of so many young women on one another was also considered by some to be hurtful, the conditions being so different from home life. We were not able to understand this objection, but there must be some weight in it, for persons of experience and standing urge it strongly. The point seems to be that such a system is unnatural, and therefore necessarily bad.

"The material equipment is much the same in all the principal institutions; it is on the whole very much finer than anything in England, though none of the buildings for women are as splendid as those of Holloway College. The quadrangle plan is rarely used in America, detached buildings being better suited to the cold and snows of their winters;<sup>1</sup> \* \* \* all have good libraries, which are extensively used. \* \* \* All have observatories, well fitted with instruments, on which no expense has been spared; here some of the students work regularly. \* \* \* Everything possible in reason seems to be done for the comfort of students. We were struck with the uniform excellence of the food served at meals.

"The relations of the students with the authorities are marked by great friendliness, and by the absence of any stiffness or formality. This we noticed again and again while going over the buildings with numbers of the faculty, waiting in offices during the transaction of business, at table, and elsewhere. The life of the college left on the writer's mind a peculiar impression of restful pleasantness, something of the feeling of a home. Wellesley, with its beautiful grounds, its seclusion, its art treasures, its traditions, has a spirit of its own, difficult to express in words, but felt by one who visits it. Bryn Mawr recalls Girton, though it is in many respects different. Vassar is majestic; its grounds have the dignity of fine trees and wide lawns; its wealth harmonizes with that of the Empire State (New York), in which it is situated. Smith seemed to the writer to have the characteristics attributed in literature to New England. The morning service in its spacious but simple chapel, where 700 students meet, is singularly impressive.

"We feel, however, very strongly on one point, and after discussing the matter with some American authorities we venture to make an adverse criticism. The required attendance on lectures is far too large in number of hours. In most colleges fifteen hours a week is the rule; some allow more, even twenty hours per week being taken. To an English student it appears necessary to devote at least six hours' preparation, and often more, to every hour of lecture. This would mean ninety hours private work, which, with the lectures, would make one hundred and five hours per week—i. e., seventeen and a half hours per day. This is of course absurd; we therefore

<sup>1</sup> Bryce, Vol. II, p. 551.



conclude that the standard of preparation is not so high as in England. The authorities themselves state that about two hours per lecture is expected; this would give an eight-hour day. But a college lecture which only requires two hours' preparation can hardly be considered to reach the standard of university work at all. We must accept, therefore, one of two alternatives; the students are over-worked, or the work done is not of a very advanced character. When we remember that students are often admitted at 16 years of age, we can take the latter explanation. But it would be in the highest degree unjust to suppose that in the best colleges the standard is, as a rule, low.

"The writer would suggest that, in the women's colleges, at all events, the students must, to do justice to their instruction, work long hours, though some of the work is not of a very intense kind. This *a priori* conclusion was borne out by some of the phenomena we observed on visiting the women's colleges. In one we were informed that it was very difficult to get the students to avail themselves of the opportunities for physical exercise; they never seemed to have any time. As lectures were given both morning and afternoon, and as the time between had to be filled with reading, laboratory work, etc., we could understand that the custom of devoting the early afternoon to physical exercise, as at Cambridge, could not well be followed. In two other colleges we were told that great stress was laid on the observance of the rule of retiring to rest at 10 p. m. This would be unnecessary if the students had more free time, as they would probably then find out for themselves how to fit in their work without sitting up late. We were struck by the absence of all allusion to that social life among the students in their own rooms which forms so important a part of English college life among women, does so much to develop self-reliance and thought on subjects apart from study, and, indeed, helps so materially toward that maturing of character which is the most important result of the years spent at college.

"Such social life may exist in American colleges; our stay was too short to enable us to be positive on the subject, but we heard nothing of it, and we could not see where the time for it was to be found. The arrangement of rooms, too, in some buildings would hinder the rise of such a system. The English ideal, that each student should have her own domain—one room or two—does not generally prevail. A common rule is to have rooms in suites, two bedrooms and one sitting room; in the main building at Vassar three bedrooms go to each sitting room. In some colleges two students share a bedroom and a sitting room. Such arrangements lend themselves to the formation of college friendships, also an important part of college life, but we can not but feel that to put each student by herself, to let her live alone and work alone for some portion of the day, and to give her opportunities of receiving her friends in her own rooms, much as ladies do in their houses, tends to develop the individual character and to change the school girl into a woman.

"When we consider how much freer the discipline of American schools is than that customary in England, it seems strange that college life there should offer so narrow a field for the self-direction of the individual. We feel as certain as a stranger can venture to be that the cause of this is the exaction of fifteen hours per week attendance on lectures. Any experienced teacher can understand that quite as much advanced work might be done in fewer hours. Indeed, the students would then do more, as they would have more time for study. They would also enjoy what is, in the writer's opinion, one of the greatest privileges of English college life among women, time to think. In the family the girl has home duties; her school days are filled with varying occupations; on leaving college she will have to satisfy the claims of practical and professional life or of society. The period between school and adult life, spent as it is from the family, in comparative solitude and independence, is the time for the growth and maturity of the inner nature. Such a privilege, it seems to us, few American college girls can ever enjoy. \* \* \* Vassar is, in the strict sense of the word, the oldest women's college in the United States. It was founded by Matthew Vassar in 1861, and opened in 1866.



"The college had to face a good deal of ridicule and opposition at first, but now holds a recognized place. Other benefactors have added to the endowment provided for it by the founder; a new model building for the residence of students, well designed and beautifully decorated, was just being finished at the time of our visit. There are 430 students, with a faculty of 41, 12 being men. Students are admitted after passing the usual entrance examination, or on producing certificates from schools approved by a committee of the faculty, the certificates of the regents of the University of the State of New York, or the certificate of the Harvard examination for women. The chief feature of the regular course is the insistence on two languages (one of which must be Latin) being studied for two years. Music and art may be studied as well as academic subjects. The fee for tuition, board, lodging, and washing is \$400, music and art being extra. Large sums are devoted to scholarships for students who need aid. \* \* \* Smith College was founded in 1875 by Miss Sophia Smith, with the object of establishing an institution for the higher education of young women, which should give them means and facilities for education equal to those in colleges for young men. It has three courses of study: The classical, leading to the degree of B. A.; the scientific, to that of B. Sc. (bachelor of sciences); and the literary, to that of B. L. (bachelor of literature). Art and music are also studies. It is difficult to describe these courses without giving elaborate details, as so many subjects are required. Electives are allowed, especially in the later years, to be selected from a very complete list, which contains the usual academic subjects, art, and music. \* \* \*

"Many of the college students engage in teaching after their college course is over; the phrase, 'a graduate of Smith,' is quoted in speaking of a woman on the staff of a high school, as if it conveyed a special qualification. From this and other indications we infer that the college takes a high place in public estimation. \* \* \*

"The site of Wellesley College is ideal; the various buildings, grouped among lawns and fragments of the original forest, and crowning the natural elevations of the ground, form a beautiful whole, different from anything we associate with colleges in England, but with a charm and grace peculiarly its own.

"The president's report gives an interesting account of the work of the alumnae (old students) during the thirteen years which have passed since the first class graduated from the college. Of these 734 graduates, 540 have engaged in educational work, 134 have married, 23 have died, 12 hold the medical degree and are practicing physicians, 15 are trained librarians, 9 have engaged in foreign and 11 in home missionary work. Many of the whole number are in conspicuous positions of responsibility.

"The whole number of students at the date of the last report (1892) is 700. A large number who applied for admission were debarred for want of room. The officers of the college number 92, 77 being engaged in teaching. Wellesley is remarkable for having had from the beginning a woman for its president, and its staff is composed almost entirely of women. By the munificence of a special benefactor, the teachers enjoy what is termed a 'Sabbatical year;' that is, they can spend each seventh year in study or rest. Most come to England for this purpose. Students are admitted on examination or 'on certificate.' The college courses are two—classical and scientific, leading respectively to the degrees of B. A. and B. Sc. So much required work and so much elective, amounting to fourteen to sixteen hours a week, is the rule. The proportion of students obtaining a degree is unusually high. In 1891 there were 123 graduates. Very few students do post-graduate work at Wellesley, only 10 appearing out of 700 in the last list. \* \* \*

"The writer spent a day and a night at Wellesley College, and had some opportunity of seeing the life of the place, and formed a very favorable impression of it. The relations between the authorities and the students seemed particularly cordial and friendly; the girls, in spite of the somewhat long hours of work, were bright and happy looking, and the atmosphere of refinement and kindness was peculiarly delightful. \* \* \*

"Bryn Mawr, near Philadelphia, although it is only 8 years old, having been opened in the autumn of 1885, has already taken a very high place among the women's colleges. It has laid itself out to give advanced instruction, and has thus a large number of graduate students, 3 of them being certificated students of Girton College, 2 wranglers, and 1 who took a first class in the classical tripos. This fact gives English people a convenient standard from which to estimate the character of the instruction given at Bryn Mawr. The faculty consists of men and women of very high standing, including graduates of the great German universities, Zurich, Johns Hopkins, Harvard, Cambridge (England), a distinguished Newnham student, and the only woman who has taken the D.Sc. in mathematics at the University of London. There are 38 instructors and 194 students, 32 being graduates doing post-graduate work. Several of these are fellows of the college. Their position is of special interest (there not being anything to exactly correspond to it in our English colleges). One of the fellowships—that in Greek—is held by the Girton student of classics mentioned above.<sup>1</sup> The regulations state:

"The most distinguished place among graduate students will be held by the fellows, who must reside in the college during the academic year. Nine fellowships, of the value of \$525 each, are awarded annually. They are open to graduates of Bryn Mawr College, or of any other college of good standing."

"Undergraduates are required to pass the Bryn Mawr entrance examination, which appears to be nearly equivalent to the matriculation examination of the University of London. The only exemption allowed is the Harvard certificate in equivalent, or a certificate from a college or university of acknowledged standing. Private schools prepare the majority of students. In the current calendar the proportion from private schools is 79.8 per cent; other colleges and universities send 9.8 per cent, and high schools only 8.0 per cent; the rest (2.4 per cent) were prepared by private study.

"The course for the B. A. degree requires some English science—or science and history—and philosophy. This only occupies part of the time; the rest must be given to the 'group' selected by the student. The group system is borrowed from the course at the Johns Hopkins University, Baltimore. It is intended to allow some degree of specialization, with provision for width of view by combining subjects. Five groups are arranged, as follows: (1) Any language with any language; (2) Any science with any science; (3) Mathematics with Greek and Latin; (4) Mathematics with physics; (5) History with political science.

\* \* \* "The research system in the colleges and universities \* \* \* is worthy of careful attention by those interested in collegiate instruction for women. It is certainly true that much of the post-graduate work in American colleges corresponds in standard to that done in preparation for an honor degree at Oxford and Cambridge, but the method is different, the students being taught how to do research, and not being required to consider what is demanded by the examiners. It seems somewhat anomalous that former women students of English colleges should be following advanced courses of study in America, under English teachers,<sup>2</sup> because they were unable to find opportunities of doing so at home.

"The system of fellowships at Bryn Mawr has an important influence on the question of post-graduate work. The Association of College Alumnae, a body of college women, also grants two fellowships for the encouragement of research.

"Our second criticism has been made already. It refers to the women's colleges, to their long hours of work, and to the apparent absence of repose and opportunity for thought and individual development consequent upon such excessive demands on the students' time. We can add nothing to what has been said already; we can only reiterate it."

The comparison of English and American institutions, the requirements of study from college girls of different ages, the general good health of the average student

<sup>1</sup> Another is held in mathematics by a Girton student (1894).

<sup>2</sup> This was the case at Bryn Mawr during the session 1892-93.

who pursues the higher branches are points which interest Miss Burstall. In the citations which follow from *The American Girl at College*, by Miss Lida Rose McCabe, more stress is placed upon the individuality of the woman. She says:

"Probably the college-bred woman is the most observed woman of the present day. After twenty years of intellectual gestation she begins to impress her individuality on the community. Discussions of eminent men as to women's mental ability, moral and physical status, predilection for matrimony, or fitness for voting have been going on for a quarter of a century.

"Meanwhile maiden bachelors of arts and science have multiplied, until now there are some 3,000 mature women who have had college training, and as many more in the heyday of youth, all of whom fall under the surveillance of a public that ceases not to question the practical outcome of this modern innovation. One by one objections raised from the intellectual, moral, physical, or matrimonial standpoint, have disappeared in the light of statistics. To one tangible phase, however, the masses cling with a covert desire to find in it sufficient evidence to outweigh the favorable testimony already adduced.

"Of what avail to women is scientific training? What is the practical outcome of higher education? These are questions whose reiteration invites deeper investigation. The marriage ratio, health statistics, number and physique of the offspring of college-bred women attest that, if scientific training does not facilitate, it certainly does not interfere with the radical function of her being. That higher education enlarges her opportunities as a breadwinner is irrefutable.

"In proportion as the price of skilled labor advances, the college bred woman's earnings will undoubtedly increase. Unhappily nothing short of an audited account in dollars and cents of the earnings of every college woman in the breadwinning world—earning the direct outcome of knowledge garnered within the walls of their alma mater—will satisfy a large portion of the community that higher education has a raison d'être.

"Coming as it does at an epoch when women are largely a factor in the industrial prosperity of the country, the desire to know the practical end to which the college-bred woman is able to put her superior training, when thrown upon her own resources for a livelihood, is under the circumstances natural, and consequently wholesome.

"Results alone justify innovations. To define at present the practical outcome of higher education is nevertheless as impossible as would be an exhibit of philanthropy or religion. To estimate the work of the present demands the eyes of a future age. As woman's colleges are said to have been founded on the Hellenic idea of 'culture for culture's sake,' authorities have not found it incumbent to follow the material fortunes of the alumnae. Masculine colleges or universities do not anticipate or define the careers of the young men they annually set adrift. Why, then, should women be required to render an account of their stewardship? logically argue the official heads. But public interest in tangible results is persistent and insatiable. Colleges are now beginning to gather data to satisfy this prevalent desire. The Vassar and Wellesley calendars of 1891 and the souvenir of the Mount Holyoke semicentennial throw interesting light upon the varied pursuits in which their alumnae have found practical activity. Smith, Harvard Annex, and Bryn Mawr have no record, nor has any been kept by the coeducational institutions. Nevertheless, all are more or less rich in individual recollection of exceptional careers. The evidence that higher education has elevated and broadened the opportunity and raised the monetary value of woman in the first field in which she found a marketable outlet for her intellect is conclusive. Teaching, with increasing equipment and ripening sense of responsibility, retains its hold on college women. One-fourth of the women who go to college go with teaching as the end in view. In keeping with the growth of colleges, preparatory schools have multiplied, until now there is scarcely a town of importance from the Atlantic to the Pacific that has not



a preparatory school in the keeping of a B. A. or an A. M. of Vassar, Wellesley, Smith, Bryn Mawr, the Annex, or some coeducational university. The insufficient preparation of students who applied for admission retarded the growth of women's colleges. So few in number and incompetent in faculty were girls' preparatory schools that Vassar and Wellesley were forced for some years to sustain academic or preparatory departments. This is now obviated, thanks to the number of skilled women sent forth yearly by the colleges to successfully conduct private enterprises, the certificates of many of which are recognized by Harvard and other leading colleges. In higher and special fields of instruction, in many conservative seats of learning, the college women now stand on equal footing, mentally and financially, with the men professors. It was not so much intolerance of sex as want of higher training that debarred her formerly." \* \* \*

#### GRADUAL DEVELOPMENT OF THE WOMAN MOVEMENT.

If this movement could be followed in its entirety in this country or throughout the world, it would be a matter of extreme interest, but much must necessarily be omitted in an essay of this kind, and, further, the subject has been quite thoroughly treated by different authors.

The following citations from *Woman's Work in America*, by Annie Nathan Meyer, taken in conjunction with the college tables on preceding pages, will show the onward movement of the woman question in different parts of the United States.

In the introduction to the above-mentioned work Mrs. Julia Ward Howe states that "a comprehensive view of the attainments made by American women in this century, and especially during the last fifteen years, can not but be of great importance and value. The cruel kindness of the old doctrine that women should be worked for and should not work, that their influence should be felt but not recognized, that they should hear and see but neither appear nor speak—all this belongs now to the record of things which, once measurably true, have become fabulous.

"The theory that women should not be workers is a corruption of the old aristocratic system. Slaves and servants, whether male or female, always worked. Women of rank in the Old World were not necessarily idle. The Eastern monarch who refused an army to a queen, sent her a golden distaff. The extremes of despotism and of luxury, undermining society and state, can alone have introduced the theory that it becomes the highly born and bred to be idle. With this unnatural paralysis of woman's active nature came ennui, the bane of the so-called privileged classes. From ennui spring morbid passions, fostered by fantastic imaginations. A respect for labor lies at the very foundation of a true democracy.

"The changes which our country has seen in this respect and the great uprising of industries among women are, then, not important to women alone, but of momentous import to society at large. The new activities sap the foundation of vicious and degraded life. From the factory to the palace the quickening impulse is felt, and the social level rises. To the larger intellectual outlook is added the growing sympathy of women with each other, which does more than anything else to make united action possible among them. A growing good will and esteem of women toward women makes itself happily felt and will do even more and more to refine away what is harsh and unjust in social and class distinctions and to render all alike heirs of truth, servants of justice.

"The initiative is now largely taken by women in departments in which they were formerly, if admitted at all, entirely and often unwillingly under the dictation of men. Philanthropists of both sexes, indeed, work harmoniously together, but in their joint undertakings the women now have their say, and, instead of waiting to be told what men would have them think, feel obliged to think for themselves. The result is not discord, but a fuller and freer harmony of action and intention. In industrial undertakings they still have far to go, but women will enter more and more into them and with happy results. The professions, indeed, supply the



keystone to the arch of woman's liberty. Not the intellectual training alone which fits for them, but the practical, technical knowledge which must accompany their exercise puts women in a position of sure defense against fraud and imposition."

The gradual educational development of woman in the Eastern States may be traced through a study of the history of those States. This would lead, however, to research over more than a century of human progress. Generally speaking, the boys had opportunities for school instruction of different grades, while in earlier times the girls were limited to home instruction until the earlier part of this century.

"By the close of the eighteenth century most towns in New England had made some slight provisions for educating girls; how slight almost any early town history will show. \* \* \* In 1789 great educational advance was made in Boston. A system was adopted which provided a 'Latin school' for fitting boys of 10 years old and over by a four-years course, including Greek and Latin, for the university; also three reading and writing schools.<sup>1</sup>

"Boys had the right to attend these all the year round; girls from the 20th of April to the 20th of October. This was the first admission of girls to the 'free schools.'" \* \* \*

Then, again, in tracing the historical development, Miss Eastman quotes Abigail, wife of President John Adams, who said: "The only chance for much intellectual improvement in the female sex was to be found in the families of the educated class and in occasional intercourse with the learned of the day. Whatever of useful instruction was received in the practical conduct of life came from maternal lips, and what of further mental development depended more upon the eagerness with which the casual teachings of daily conversation were treasured up than upon any labor expended purposely to promote it. Female education in the best families went no further than writing and arithmetic, and in some few and rare instances music and dancing."

Of woman's culture in the different States, Miss Eastman says:

"The young ladies of Massachusetts in the last century were certainly readers, even though only self-taught, and their taste was not for the feeble and nerveless sentiment or the frantic passion of our day, but was derived from the deepest wells of English literature. The superb flowering of native mental gifts in many women of the last part of the eighteenth and the early part of the nineteenth centuries, under so slight stimulus of educational advantage, would almost force upon us the theory of Descartes, that 'in order to improve the mind we ought less to learn than to contemplate,' and lead us to accept the dictum of Huxley, that all the time we are using our plain common sense we are at once scientists and artists. \* \* \*

"The third and fourth decades of the nineteenth century marked an epoch in education through the service done by a few teachers who seemed to have fresh inspirations as to the capabilities of women and practical ability to embody them. They helped to verify the forecast of Rev. Joseph Emerson, principal of the academy at Byfield, Mass.

"Mr. Emerson was deeply interested in the theme of the millennium, and regarded women in the capacity of educator, as the hope of the world's salvation. Unlike his contemporaries, he believed in educating young women as thoroughly as young men, and in 1822 predicted 'a time when higher institutions for the education of young women would be as needful as colleges for young men.'"

Among the early pioneers in the education of girls was Mrs. Emma Hart Willard, born in 1787 in Connecticut, whose life work will always be associated with that of Troy Female Seminary. Brought up amidst cultured people, she early became convinced that the young people of her own sex were capable of grasping the higher branches of knowledge, and that such mental development should not be limited to boys alone.

<sup>1</sup> Miss Mary F. Eastman in *Woman's Work in America*, by Annie Nathan Meyer.

As an outcome of the work accomplished in that seminary, many institutions<sup>1</sup> of a similar grade have sprung up all over the country, in the South particularly, and "two-thirds of them confer degrees."

The early history of this movement would be incomplete without reference to Mount Holyoke, which, dating from 1836, was organized by Mary Lyon and aimed to have a "course equal to that required for admission to college." Since 1888 this seminary and college is authorized "to confer such degrees and diplomas as are conferred by any university, college, or seminary of learning in this Commonwealth."

The education of women in the Western States is so intermingled with that of the boys, in coeducational institutions, that it is almost impossible to give even the merest historical sketch without trenching upon a subject beyond the aim of this chapter.

For such information reference is made to the chapters on coeducation in the Report of the Commissioner of Education for 1891-92, and its continuation elsewhere in this report.

The Government's early attitude toward the education of woman is thus stated by Mrs. May Wright Sewall.<sup>2</sup> She says:

"Higher education in the West has been fostered by the National Government, by the governments of the separate States, by many different denominations of the Christian church, and by individual enterprise and devotion.

"As a large number of the strongest institutions in the West open to women owe their origin to provisions made by the General Government, it is fitting to direct our first inquiry to the relations of that Government to education in the West. On May 25, 1785, the Continental Congress passed an ordinance disposing of lands in the Northwestern Territory, by which it was decreed that 'there shall be reserved lot No. 16 of every township for the maintenance of public schools within said township.' On July 13, 1787, the famous ordinance relating to the government of the territory northwest of the Ohio River was passed. In it occurs the passage which is so frequently cited in proof that the United States Government stands pledged to aid the higher as well as the lower education, viz, 'Religion, morality, and knowledge being necessary to good government and the happiness of mankind, schools and the means of education shall forever be encouraged.' Ten days later Congress passed another ordinance fixing the terms of sale for the tract of land purchased by the Ohio Company. This ordinance stipulated not only that section 16 of every township should be reserved for the maintenance of schools, but also 'that two complete townships shall be given perpetually for the purposes of an university, to be laid off by the purchaser or purchasers as near the center as may be, so that the same shall be good land, to be applied to the intended object by the legislature of the State.'

"In these ordinances of 1787 we find the germ of all our State universities in the West." \* \* \*

The early efforts of different denominations to so educate girls that they become worthy helpmates in the battle of life are clearly defined by Mrs. Sewall, and she states that "the colleges under Methodist control have been generally first and foremost in opening their opportunities to women."

The extent of coeducation and coeducational institutions in the West is such that one may almost say there are no women's colleges, for out of 249 higher institutions 209 are coeducational, and therefore only about one-sixth<sup>3</sup> are devoted to female education. "But," to quote Mrs. Sewall again, "almost without exception the women's colleges in the West include preparatory departments; very generally the attendance in the preparatory department exceeds that in the collegiate; frequently members of the faculty divide their attention between preparatory and collegiate classes;

<sup>1</sup> Over 200 such institutions; vide *Woman's Work in America*, p. 33.

<sup>2</sup> Vide *Woman's Work in America*, by Annie Nathan Meyer.

<sup>3</sup> From advance sheets of the Report of the Commissioner of Education 1894-95.

generally the courses of study offered are less numerous and less complete than those offered in colleges of liberal arts for men; most of these institutions have paltry or no endowments.

"With all these limitations, some of them do much creditable work; but at present they occupy a rather vague, indefinite position between 'the ladies' seminary' of thirty years ago and the modern college. \* \* \* Among colleges characterized from birth by a liberal and progressive spirit may be mentioned the Cincinnati Wesleyan Woman's College. This institution was chartered in 1842, and claims to be 'the first liberal collegiate institution in the world for the exclusive education of women.' This claim sounds somewhat boastful, but a perusal of the discussions which were called forth by the establishment of this college will convince one that its undertaking was novel and quite foreign to the thought of its public, if not, indeed, quite unprecedented in the world's history."

After speaking of the limitations in Western colleges and of the giving of honors too easily, Mrs. Sewall says:

"The growth of progressive thought in the West concerning the social and civil position and the industrial and professional freedom of woman tends to supply woman with incentives to obtain the best education, and the defects in their education hitherto caused by the absence of incentive promise to be remedied with increasing rapidity."

The same criticism may be made in regard to Western colleges as is made on institutions elsewhere in this country, that the average requirements for admission should be raised, and then secondary schools could maintain a higher standard. This suggestion lends itself to the general discussion of such subjects and is in no wise limited to any special section.

The educational facilities offered to the women of the South have greatly increased of late years. Formerly it was conceded that it was not "desirable to give her any other education than what sufficed to make her a good housewife and an agreeable but not too critical companion for her husband." But, as is stated by Christine Ladd Franklin:<sup>1</sup>

"It is plain that so long as this view of the function of women prevails they will have little incentive and little opportunity for undertaking the severe labors which are the necessary condition of a solid education. The lighter graces which are supposed to result from a little training in French and music and from some study of English literature have for a long time been accessible to Southern girls, both in schools of their own and in the numerous private and fashionable schools of Baltimore, Philadelphia, and New York. When a girl was a member of a thoroughly cultivated family she naturally became a cultivated woman." \* \* \*

It is not to the purpose to trench upon the subject of secondary education in the Southern part of this country (except perhaps to mention the establishment of the Bryn Mawr Preparatory School in Baltimore in 1884), but merely to touch upon the historical phases of higher education in the various sections. As in the North, so in the South, says the same writer, the Moravians "have been foremost among the religious denominations in the establishing of schools for girls of a thorough if not of an elementary type"—and she quotes, as of widespread influence, the Salem Female Academy, opened in 1804, "among the foothills of the Blue Ridge," which has educated between 6,000 and 7,000 pupils.

"In January, 1839, the Georgia Female College (now the Wesleyan Female College) was opened at Macon, Ga. It had from the beginning the power of conferring degrees, and 11 young women took the degree of A. B. in 1840. It is commonly said that this is the first college for women that ever existed. That it was called a college was doubtless merely owing to the politeness of the Georgia legislature." \* \* \*

Mrs. Franklin states that "the years about 1840 seemed to have been a period of general awakening," for about that date were established the Judson Institute,

<sup>1</sup> In *Woman's Work in America*, by Annie Nathan Meyer.



founded by the Baptists in Alabama in 1839; the Greensborough Female College (Methodist), which, the "first incorporated college for women in North Carolina," obtained its charter in 1838, but received students first in 1846; the Frederick Female Seminary of Maryland, incorporated in 1840 and opened in 1843; St. Mary's School, at Raleigh, N. C., opened in 1842.

Frequently it is asserted that the collegiate education of women does not exist in the South, but, as Mrs. Franklin says:

"In many a Southern family the question whether a girl shall go to college or not has become, at least, a question to be discussed. It rests largely with existing college graduates to determine whether a sentiment in favor of the higher education for women shall grow rapidly or slowly, and whether schools for 'superior instruction' shall be or shall not be improved in quality. It is not necessary that every girl should go to college, but it is necessary that some should go, for there is absolutely no other way of keeping up the standard of the lower schools except by making sure that they give such instruction as will stand the test of the college-entrance examinations. \* \* \*

"The real colleges for women in the South consist of the Woman's College of Baltimore (the only representative in the South of separate education for women of a collegiate grade), and the coeducational colleges (including in that term those in which the management and the degrees are the same for the men and the women, though the recitations may be conducted separately). Of these, the University of Texas, the Tulane University (which is the State University of Louisiana), the University of Mississippi, and the Columbian University in Washington are the important ones. The admission of women into all of these universities is of very recent date, and may be taken as an indication of a general movement in favor of a greater degree of generosity toward women, which may in time sweep over the entire South. The geographical distribution of these entering wedges is worthy of note. Baltimore and Washington on the north, the University of Missouri on the west, the State universities of the three States of the extreme Southwest; add to this the fact that the State of Florida has every one of its four colleges for men open to women, and that it has not a single girls' seminary of the old-fashioned type, and it may well be believed that the modern idea of what a woman requires in the way of education is destined to close in upon the entire Southern country, and that the contentment which Southern women have hitherto shown with the unsubstantial parts of learning will eventually be replaced by more far-reaching claims." \* \* \*

Such, in brief, are the main points pertaining to the education of women in America. Much of interest has necessarily been omitted; the principal effort has been to group together statements in a condensed form which are widely scattered and, therefore, not always available to persons desiring information in regard to woman's status and the progressive movements in the education of girls.

#### THE EDUCATION OF WOMEN ABROAD.<sup>1</sup>

##### GREAT BRITAIN.<sup>2</sup>

The endeavor is made in the following pages to portray the conditions, as far as possible, attendant upon the higher education of women in different countries, and also, as far as possible, to present statements anent the women's colleges, as apart from the coeducational institutions. The latter are referred to, however, as the subject could not be properly treated if these developments of the new era were omitted. This presentation is only a tentative one, and there are many lacunæ, but it is thought probable that these very lacunæ may be the means of bringing out information heretofore unavailable.

<sup>1</sup> The subject of women in the medical and legal professions is treated at the close of this chapter.

<sup>2</sup> Information gleaned from *The Woman Question in Europe*, by Theodore Stanton; from article by Miss Alice Zimmern in the *Forum* (April, 1895); from college charters; from the *Contemporary Review* (March, 1896); from *Athenæum*, 1895, etc.



The establishment of Girton College and Newnham, and the developments at Oxford and Cambridge universities are so fully treated in the chapter on "Facilities for the university education of women in England," by Mrs. M. F. Crow, which precedes this, that information appertaining to those institutions has been purposely omitted here. There are certain points of interest which will be presented, however. The movement in regard to the higher education of women in England is of comparatively recent origin, for it is only within the last forty years that the subject has been actively discussed, its initiative being in 1846-47. Queen's College, for the education of governesses, was the first to apply for a charter, which, granted in 1853, was the "first formed public sanction given in modern times to the principle that the education of English women was not less important or less worthy of honor than that of men."

Two of the leaders in this advance movement for women were Miss Buss, head mistress of the North London Collegiate School, and Miss Beale, principal of the Ladies' College in Cheltenham, both of whom were trained in Queen's College.

In 1849 Bedford College, of similar purpose, was established, but it differentiated itself from Queen's College by holding aloof from denominational influences.

Now a period of seventeen years intervenes until there comes the request for the admission of girls to the local examinations at the University of Cambridge, and this is soon followed by a movement at Oxford which, instead of classing the girls separately, as in the Cambridge plan, placed all candidates on a list giving the results of examinations, irrespective of sex. Various associations were formed from time to time, all aiming, by means of lectures and classes, to give similar advanced instruction to women as is given to men in the universities. Among these may be named the North of England Council for the Higher Education of Women, and an offshoot, the Ladies' Council of the Yorkshire Council of Education. These led in the higher educational movements for women, but similar associations were soon formed in the majority of the large towns of England and in university centers of Scotland and Ireland.

In 1869 came the first developments of Girton<sup>1</sup> College; in 1873 of Newnham,<sup>1</sup> which only aimed at first to thoroughly prepare for the Cambridge local examinations, but many of the students have "shared the privilege granted to the Girton students of informal examination in the tripos<sup>2</sup> subjects."

Alexandra College and Queen's Institute, both in Dublin, were among the earlier institutions for the higher education of women in Great Britain. The latter aimed to be technical in character, but lack of general culture in the students who desired to enter led to a change of plan in favor of more general instruction.

The most ancient seats of learning, Oxford and Cambridge, are developments of the old monastic system, and still retain many mediæval customs; in direct contrast are the modern institutions, such as London, Durham, Victoria, and the University of Wales. London University, founded in 1836, is an examining and degree-conferring body, which aims to develop "into a teaching as well as examining university." Since 1878 women have been admitted to the faculties of arts, sciences, medicine, law, and music. There is no theological faculty. A special medical school for women was opened, whose degrees give very high standing in the medical profession. In this university<sup>3</sup> women stand equally with men. They take part in the government of the university, except that they do not vote for a member of Parliament, as do the male members of the governing bodies.

Victoria, dating from 1880 and comprising the university colleges of Manchester,

<sup>1</sup> See chapter on "Facilities for the University Education of Women in England."

<sup>2</sup> Admission to the tripos examinations is permitted to female students who have obtained an honor certificate in the higher local examinations.

<sup>3</sup> The University of London, on presentation day, 1895, gave Miss E. A. S. Dawes the degree of Litt. D., the first woman to receive the degree. Of the 253 bachelors of art, 80 were women, and women students received 8 of the 29 M. A., 10 of the 81 B. Sc., 8 of the 77 B. M., and 10 of the 47 M. D. degrees conferred.

Liverpool, and Leeds, examines, says the charter, "all persons, male and female, who shall have pursued a regular course of study in a college in the university." Women are not admitted to the medical schools of this university.

Wales, the youngest university, comprises the colleges of Bangor, Cardiff, and Aberystwith. Its charter (1894) says that "women shall be eligible equally with men for admittance to any degree which the university is by this our charter authorized to confer; every office hereby created in the university and the membership of every authority hereby constituted shall be open to women equally with men." The governing body is the university court. Some of its members must by charter be women, and there is at present one lady member of the senate.

Durham now acknowledges women, and a petition<sup>1</sup> requests the privilege of so altering the charter as to confer degrees on duly qualified women in all subjects except theology.

On March 3, 1896, a resolution<sup>2</sup> was submitted to the congregation of the University of Oxford, which, if carried, would have had the effect of conferring the B. A. degree on women students who had complied with the conditions of residence and examination required of men for that degree, limited by the further condition that the woman B. A. must have passed in honors. In making a plea for woman's higher education, Millicent Garrett Fawcett<sup>3</sup> says:

"The vitality of every ancient institution may be tested by the power which it shows of adapting itself to modern changes and the growth of modern life. The ancient universities have shown this vitality in many directions, by the introduction of greater variety into their curricula, by opening their doors to nonconformists, by the help they have afforded to secondary education through their local examinations for boys and girls, by the invention and vigorous promotion of what is called university extension—by means of which more than 60,000 persons of both sexes are each year receiving instruction of a systematic character—and last, but not least, they have shown their vitality by accommodating themselves to a social change which has already taken place, one of the manifestations of which is a demand on the part of women to share in the blessings of university education."

In speaking of the effect of higher study upon women, the point is often made that such study tends to break down the health. Here again Mrs. Fawcett says:

"Women at Cambridge have been taking the same university course as men for twenty years, and have suffered no injury to their physique. A few years ago Mrs. Sidgwick made a most laborious statistical inquiry into the effect of academic work on the health of women. For this purpose she investigated the physical history of more than 500 women students of Oxford and Cambridge, and compared it with that of their sisters who had not had academic training, and also with that of their parents and brothers. The result was that the statement that a university course was injurious to the health of women entirely broke down."

Latest advices from England indicate that two educational bodies have reported favorably in regard to the subject of university degrees for women. These are the Church Schools Company, 18 out of 24 head mistresses signing the memorial, and the Girls' Public School Company, whose petition was signed by 34 out of 36 head mistresses.

The advance in noncollegiate graduate study is noticeable through the step taken by the London School of Economics, which is under joint control of the Chamber of Commerce and the Society of Arts. Its courses cover commercial history and

<sup>1</sup>The authorities of Durham University have received an intimation that their petition for a modification of the charter, such as would enable them to confer degrees upon women, has been granted. There will henceforth be no distinction of sex among the alumni of the university (except, we presume, in the faculty of theology). The University of Wales remains, of course, the most comprehensive of all the British universities in this respect, having been founded without sex distinctions, even for the teaching staff and the governing authorities. (*Athenæum*.)

<sup>2</sup>The proposal was rejected by a vote of 215 to 140.

<sup>3</sup>In the *Contemporary Review* of March, 1896.

geography, taxation, economics, political science, commercial and industrial law. The school opened with 200 students of both sexes, such as teachers, journalists, government employees, clerks from mercantile offices, experts, and persons from the municipal civil service.

In addition to all that is being done in other parts of Great Britain in the matter of higher education, the University of St. Andrews offers all advantages to women, and the other universities of Scotland offer similar advantages to those obtained at Oxford and Cambridge. Besides these opportunities there are others; for instance, Queen Margaret's College is the only college for women in Scotland really on the lines of a university and fitting its students for university degrees as soon as these are thrown open to women. It is the outgrowth of a small scheme started by a few ladies for the higher education of women some fifteen years ago. To this scheme the Glasgow University gave most generous sympathy, and after the usual vicissitudes the scheme grew until it finally became incorporated as a college, to which a wealthy woman gave the present buildings as a home. It has about 200 women students pursuing studies in art, science, and medicine under a staff of professors, many of whom are identical with those of the university.

The work of the associations for the university education of women, both in Glasgow and Edinburgh, has been of inestimable value to those desiring a higher education, for on October 19, 1892, the University of Edinburgh opened not only its courts, but its arts classrooms, to women students on the same terms as men. The Scottish University commission now gives greater latitude to the subjects of study for a degree.

As a matter of interest to those who are observing the gradual development of the "*mouvement féministe*," a résumé of an address is given. It is by the Right Honorable the Countess of Aberdeen, and was delivered at a meeting of the Edinburgh Association for the University Education of Women on April 22, 1885. Prior to the commencement of the meeting, the Edinburgh University certificate in arts was presented to those who were successful in competing for it. The Countess first referred to the work accomplished by the association and to its eminent usefulness. She hoped that she would be excused "for feeling a pardonable pride when considering the life and growth of the association, and all that has been accomplished by its means."

The Countess remarked that "many of the young men students of the university might feel jealous if they heard the opinion passed by the professors on the equality of the work which they meet with at the ladies' classes." This association has always laid claim to the right of women to be admitted by the universities to the same classes and the same degrees on the same level as men, and has been unremitting in its efforts, along with other kindred societies, in pushing through the universities bill, which enables the Scottish universities to deal with the graduation of women. With this bill a law, the higher education of women would be recognized by the outward badge of a degree being conferred. The Countess of Aberdeen refers to the terror which some persons feel when the subject of the university education of women is mooted, and says:

"It is incumbent on every educated woman to show that her education does not merely mean that she has gained so much knowledge herself, or possibly the power of imparting it to others, or that she is henceforth to devote herself to the main idea of bringing out some literary or scientific work. It may mean all this; but let it also mean that it has so enlarged and developed her mind and reasoning powers as to enable her to be more and more the bright, intelligent companion of father, husband, or brother; to be the mother who not only will know how to draw out the dawning powers of her infant children, but who will realize that her education has conferred no greater boon than the power of keeping abreast of and in touch with her children as they grow up, instead of being left hopelessly behind."

The Countess remarks: "How strange it is to see mothers whose care of their children is most solicitous, but who seem to forget that there is another time in their



lives, when they are passing from boyhood and girlhood into men and women, on which much of their future depends, and when she can only retain influence by being able to enter into and be in sympathy with their studies and pursuits. Are our educated women going to realize that a new power for good on future generations has been intrusted to them in this respect?"

In speaking of philanthropic and religious work, the Countess remarks that many such organizations have failed because the head was not cultivated as well as the heart, so that the lack of executive ability was everywhere apparent. The mention of this field of labor shows the need women have of the highest education. The Countess of Aberdeen brings out many fine points in favor of the higher education of women, but a word which she quotes from the prime minister will suffice as a close to the statements made: "Education was not meant to raise men and women out of labor, but to enable them to raise labor."

## FRANCE.

Statistics for 1891 represent France as having 2,750,621 girls studying in primary schools and 11,645 in public secondary schools (*lycées, collèges, and cours secondaires*). In 1891-92 there were 421 women in the university faculties, distributed as follows: Two hundred and forty-nine in letters, 29 in science, 129 in medicine, 14 in pharmacy. In 1894 there were 50 "*lycées or collèges de filles,*" with 10,011 pupils under instruction.<sup>1</sup> The first impetus to higher study came from the law of December 21-22, 1880, that of July 26-28, 1881,<sup>2</sup> from a decree of November 5, 1881, and from the promulgation of the law Camille Sée (so called) in 1882, which laws established *lycées* for girls, a higher normal for girls—training them for teachers in secondary schools—created a number of degrees for women only, and arranged that (when sufficiently prepared) women should be teachers in these secondary grade schools.

In the discussions before the Chamber of Deputies prior to the passage of this law M. Camille Sée laid stress upon the fact that the "law is at one and the same time a moral law, a social law, and a political law; it concerns the future and safety of France, for on women depend the grandeur as well as the decadence of nations."<sup>3</sup>

Under the Empire women were allowed to follow university courses and to receive university degrees. In fact, the university faculties have never really been closed to women, but this fact has hardly been realized until within a few years. When women requested to enter upon the lecture courses it was learned that there was no law against such admission. It was apparently between 1865 and 1875 that the "*Cours du Collège de France*" were open to women. At the Sorbonne they were admitted about 1872, and there is an increased attendance each year. In 1892 the legal faculty conferred the degree of doctor juris on a woman. In 1889 Mlle. Palbotier passed a successful teacher's examination at the Oriental Academy in Paris—being the first woman to pass this examination. In 1866-67 a woman passed the examination for the "*baccalauréat ès lettres,*" being the first woman to obtain this degree; but to-day there are several who have the bachelor's degree in letters or sciences, while many are licentiates in these courses. The majority of women pursuing higher studies in France—among them many Russian residents—seek for degrees in medicine.<sup>4</sup> "From 1866 to 1882, 109 degrees were conferred upon women in France. There have been 49 bachelors of arts, 32 bachelors of science, and 21 doctors of medicine; 98 degrees have been conferred in Paris alone."<sup>5</sup>

Courses of lectures for the intermediate grade of instruction for young girls were

<sup>1</sup> Statistics courteously furnished by M. Émile Levasseur, president of the Statistical Commission for Primary Education.

<sup>2</sup> *Bulletin des Lois*, Nos. 9987, 10855, and 11126 (see *Essai sur la Condition Politique de la Femme*, par Louis Frank).

<sup>3</sup> *The Woman Question in Europe*, by Theodore Stanton.

<sup>4</sup> From letter of M. Émile Levasseur, June, 1895.



established by M. Duruy, minister of public instruction, in 1867, but the most active developments came after the establishment in France, in 1882, of a school system based upon the best phases of the school system (so called) of America. The interest manifested in the woman's side of education is thus described by Théodore Stanton, who says that "the day before the Rouen College (lycée) was opened, in October, 1882, the names of 202 girls were already on the register. The Amiens College had during its first term 60 day and 40 boarding scholars. At Lyons, a very clerical city, although the college opened very late in the autumn of 1882, some 40 scholars were in attendance. When the Montpellier College, the first girls' college in France, was organized it had 76 scholars; at the end of the year more than 100, and during the autumn of 1882 the lectures were attended by 215 girls. The college at Grenoble began on April 17, 1882, with 47 girls, and in January, 1883, this number had risen to 112. This same tendency is seen in the lecture courses founded by M. Duruy, to which reference has already been made. Whereas in 1875 these Sorbonne studies were pursued by 165 girls, in the collegiate year 1881-82 there were 244.

"But the Government and the municipalities enter as heartily into the work as the women themselves. The Chamber voted, in 1882, 10,000,000 francs for the creation of girls' colleges. Rouen, one of the first cities to demand a college, found that it would cost 1,000,000 francs; the municipality forthwith contributed half that sum and the Government the other half. At the end of the first year after the promulgation of the Sée law the following results had been obtained: The foundation of a superior normal school for women at Sèvres,<sup>1</sup> the opening of four colleges, all the preliminary steps taken to the same end in 26 other cities, while similar negotiations had been begun by 38 other municipalities.

"In the school (or college) at Sèvres women are prepared for the lycées. Here they work for the certificat d'aptitude and the agrégation. The college is supported by the State; students on entrance sign an agreement promising to teach under the State ten years after leaving, and the successful candidates have the first right to vacant posts in public schools. Private classes may also prepare for these examinations; in particular the Collège Sévigné holds such."<sup>2</sup>

The courses of lectures in the university faculties are divided into "cours ouverts" and "cours fermés," which, as the terms signify, are open or closed. To the former all can go; to the latter only those who have passed the baccalauréat and taken a certain number of "inscriptions" are presumed to enter. There is great liberty, however, and few are turned away who desire to attend. At the Sorbonne classes are formed for those of both sexes who desire to prepare for modern-language examinations. In the university faculties the ordinary course for a degree is thus described by Miss Alice Zimmern:

"The baccalauréat is a kind of matriculation examination; the boys' lycées prepare their pupils for it, but it is open to all candidates, male and female. The licence is an intermediate examination, but for many it is the goal of their studies. At least a year must elapse before the baccalauréat and the licence. For the degree of doctor theses have to be written and sustained before the faculty. But a small proportion of students proceed to this degree."

Compared with the number of those who are hearers, few French women have qualified themselves for university degrees. Medical instruction for women dates from 1868 in the Paris medical school, but of the 169 women students now attending these courses only 16 are French; the Russians and Poles outnumber any other nationality.<sup>2</sup> Law students and those in theology are very few in number, as women find no career opened to them, but still they are not forbidden such study. Then

<sup>1</sup> The normal school at Sèvres, presided over by Mme. Jules Favre, wife of the famous statesman of that name, is considered to have wielded much influence. Mme. Favre died in the early part of 1836, but her influence will long be felt. Mme. Henri Marion now presides over the school.

<sup>2</sup> See *Women in European Universities*, by Miss Alice Zimmern; Forum, April, 1895.

there are industrial schools for girls, where in a three or four years' course they may receive instruction in modern languages, domestic economy, industrial designing, cutting and fitting of garments, bookkeeping, and accounts. Kitchen arrangements and workshops are attached to these schools, so that both theoretical and practical instruction may be given.

Woman in the medical and legal professions is treated under those heads at the close of this chapter.

#### BELGIUM.

The question of admitting women to the universities originated in 1875 when M. Delcour, minister of the interior, requested an opinion from the various faculties of the universities as to the advisability of admitting women. Liège and Ghent presented no reason for their exclusion, but suggested awaiting the result of such action in other countries. In 1880-81 they were admitted in the free (libre) university of Brussels, 3 women following the course in natural sciences; this number increased to 5 in 1882, and ten years later 75 women had received academic honors—of these 24 in natural sciences and 17 in pharmacy. According to the laws of May 20, 1876, and of April 10, 1890,<sup>1</sup> women can follow the courses of any faculty and obtain the diploma. They may exercise the profession of doctor and pharmacist, but not of lawyer. From 1882 to 1889 there were 156 women studying in the universities of Brussels, Ghent, Liege.<sup>2</sup>

An innovation, as it was considered, took place when, in 1892, two young ladies received employment in connection with the law courts in Antwerp. They took the place of two male clerks at the tribunal of commerce connected with the civil courts.

For years the Government has permitted women to act as telegraphers, telephonists, etc.

The "Ligue Belge du Droit des Femmes" has established conferences for women since 1890, in which the university professors give lectures in domestic economy, hygiene for women and children, anatomy and physiology, medicine, the science of education, social economics, elements of law, art of reading, civil and economic condition of women, and on the laws as they appertain to the woman question.<sup>3</sup>

The Belgian Association for the Advancement of Women urges a revision of the civil code so that both sexes may have equal rights before the law. Its members request the extension of professional education for women, a study of coeducation of the sexes in all grades of schools, equal pay to both sexes, wherever they do equal work, and the admission of both sexes to various official employments—morality, intelligence, and capacity being the only prerequisites. The discussions indicate the desire of the association, which now numbers more than 200 members, to benefit humanity by giving the woman her proper place before the law, in the hospital service, in connection with public charities, in all official employments, in the administering of school affairs, and by this onward movement to strengthen the woman's position in the family circle as well as outside of it.

An interesting presentation of this question is made by Isola van Diest, M. D.<sup>4</sup> She says:

"The situation of woman in Belgium is about the same as in France. \* \* \*

"A word remains to be said concerning the admission of women to the walks of higher education, and notably to the study of medicine. There existed in Belgium some years ago a law which required students who would enter the university to pass the examination of graduate in letters (*gradu  en lettres*). Candidates for this degree were expected to know how to translate Greek and write Latin. But as

<sup>1</sup>La collation des grades acad miques, article 52 de la loi. See *Les Femmes et l'Enseignement Sup rieur*, par Louis Frank (*Revue Universitaire*, 15 F vrier, 1893).

<sup>2</sup>Essai sur la Condition Politique de la Femme, par Louis Frank, Paris, 1892, p. 255.

<sup>3</sup>Revue Internationale de l'Enseignement, Avril, 1894.

<sup>4</sup>The Woman Question in Europe, by Theodore Stanton.

there were no schools where girls could study the dead languages with the thoroughness of boys, who were trained six years in the classics, the former were almost entirely shut out from enjoying the advantages of an university course. This graduate, however, no longer exists, and the entrance of women into our universities is now possible. Female students are found to-day at Brussels, Liège, and Ghent, but their number is still very small. It was in 1880-81 that the first woman entered the university of Brussels, but it was not until 1883 that their admission became general. They pursue, for the most part, scientific studies, thereby securing more lucrative positions as teachers, and pass their examinations for graduation with success. The higher education of women is still an open question in Belgium, and there are those who oppose it. But the experience of Switzerland, England, and France, not to mention other countries on both sides of the Atlantic, answers victoriously all objections. And does not the long list of the world's distinguished women prove that the female sex is capable of the highest intellectual culture? Not to go outside of belles-lettres and the limits of Belgium, we have Miss Nizet, Marguerite Van de Wiele, the Countess de Kerchove de Denterghem, the Loveling sisters, Mrs. Courtmans, Mrs. Van Ackere, and many others."

#### NETHERLANDS.<sup>1</sup>

The greater part of the schools in the Netherlands are mixed schools. Coeducation, which was prohibited in France a century ago by Condorcet, is a principle of pedagogy in the Netherlands. An interesting presentation of these coeducational schools might be made, but the intention here is to simply indicate the advance movements in woman's education. The primary schools have 323,415 girls in attendance; that is, boys and girls between 6 and 12 years of age are educated together. Groningen has a normal school for women teachers, and there are many normal courses which they attend. Of the 60 "middle" schools for boys, 40 had 371 girls in attendance in 1894, and there are 12 "middle" schools for girls only.

Young girls who wish to devote themselves to higher studies attend the courses of the gymnasia or colleges. There are in Holland 29 gymnasia or colleges, of which 4 are nonsubsidized. These belong to the communes, which have the authority to decide whether a college shall be mixed or reserved exclusively for young men. This year the Catholic provinces Maestricht and Breda have refused to open their colleges to young girls. In the Protestant provinces it is different. Thus, in Amsterdam 26 young women are enrolled in the "lycées;" in Rotterdam, 13. In every instance the boys show the greatest deference for their girl companions. A little roguishness is sometimes apparent, for the young men refuse to consider their young women companions as girls, and give them boys' names.

The courses of the four Netherland universities are accessible to women. Between 1880-81 and 1893-94 the celebrated university of Utrecht had 118 women enrolled. This year (1894-95) 53 young ladies were matriculated as students; in Groningen, 13; in Utrecht, 16; in Leyden, 11; at the communal university of Amsterdam, 15. Of these women 11 study medicine, 19 philosophy and letters, 12 natural sciences, 13 divers branches. Leyden, Utrecht, and Amsterdam universities have already graduated a number of women; several are following courses in fine arts; others follow the modern language course; still others seek the diploma entitling them to teach in secondary schools. Among the students at Amsterdam were women who pursued the studies of French and English literature, the old Dutch language, Greek, and Gothic art. Women have the same opportunities as men in the universities, and are allowed to enter for any examinations they may desire.<sup>2</sup>

Their progress in the medical and legal professions is described under the appropriate headings at the close of this essay.

<sup>1</sup> *Revue Pédagogique Belge*, 1894-95, and *Verslag van den Staat der Hooge-, Middelbare en Lagere Scholen in het Koninkrijk der Nederlanden*.

<sup>2</sup> *Essai sur la Condition Politique de la Femme*, par Louis Frank. Paris, 1892.



## DENMARK.

An article on the legal status of women in Denmark was published by Miss Nanna Kristensen-Randers<sup>1</sup> (exam. juris) in April, 1892, in the *Woman's Journal*, of Boston. Among other things she says:

"Teaching has been the principal work of women from ancient times, and they have not abandoned it because their range of occupation has been enlarged. On the contrary, women have chosen by preference the work of spreading knowledge and instruction, and here they have really done eminent service. In this respect we have had an excellent pioneer, Miss Natalie Zahle, who, in 1851, founded a school in Copenhagen both for children and grown-up girls. When, in 1860, women were admitted to appointments in public schools, she added to her institution a private seminary for women, from which in the course of time a great number of admirably prepared women have been sent out. In 1875 the University of Copenhagen was opened to women, and Miss Zahle immediately organized two new classes, where they might be fitted for the university. This large and excellent school, or rather collection of schools, has excited due admiration, as well in our own country as abroad. It is governed exclusively by women, and the teaching is chiefly done by them also. On the fortieth anniversary of the founding of the school our Government gave Miss Zahle the gold medal of merit. Only one Danish woman, the late actress, Mrs. Heiberg, had previously been honored with this token of distinction.

"Instruction is said to rank rather high here in Denmark, and this is especially the case with women. We have all the more reason to be proud of the fact, as they receive only a very small pecuniary support from the Government. The common schools are open to girls, but the higher schools are, as a rule, reserved for boys alone. Of late, however, a few of these schools have begun to admit girls.

"As mentioned above, women obtained access to the university in 1875, when they were given the right to pass all the examinations. The theological faculty, however, arranged a special examination for women. But they are not entitled to obtain employments nor to enjoy the stipends, legacies, etc., possessed by the university. Seventy-six women have passed the examination which admits to the university, and 8 of them have continued their studies. Four of these ladies have become physicians, two M. A.'s, and two have passed a higher school examination.

"Apart from these, our women students are about equally divided between the study of medicine, mathematics, natural science and history, philology, etc. One woman is studying political economy. Among our theologians there is no woman as yet. The author of this treatise in the summer of 1887 passed the examination in jurisprudence, and obtained immediately a situation with a lawyer. But the authorities did not think it fitting to appoint a woman as attorney, and our supreme court of justice was of the same opinion.

"Women who have never passed any examination frequent the University of Copenhagen in large numbers, as they have free access to the lectures, and two have received the university's gold medal for answering prize questions.<sup>2</sup>

"There may be mentioned, as contributing to the education of women, several good commercial schools, a drawing school, and an art school for women. It is also worthy of notice that every year from 1,600 to 2,000 girls, chiefly servants and peasant girls, spend three months at our high schools for the people.

"Among situations held by women may be mentioned, besides the traditional ones, appointments in banks and similar institutions and in telegraph and post offices. Dentistry seems to have some attraction for women. Several have become dentists, and women are admitted to a school of dentistry lately opened. No woman here has yet become an apothecary, but one has passed an examination as assistant.

<sup>1</sup> Miss Nanna Kristensen-Randers is connected with the Ollerup High School near Svendborg, on the Island of Funen.

<sup>2</sup> Miss Anna Hude received the medal for historical proficiency, and has been appointed assistant in the historical department of the Royal Archives.



"One woman has passed an examination at the agricultural school.<sup>1</sup> Instruction in horticulture is given to women. Among new occupations may be mentioned that of stenographer<sup>2</sup> in our parliament, a position held by two women. From what has been told here it will be seen that Danish women are now able to choose almost any work that suits their wishes and abilities."

As is stated above, the university was opened to women in 1875. According to article 3 of the decree of June 25, 1875,<sup>3</sup> women who have given satisfactory proof of their ability, when examined for the Artium, are permitted to follow the courses and present themselves for the examinations. The decree stipulates, however, that the obtaining of degrees does not permit the women to fill public positions, to receive university scholarships or pecuniary aid from the State.

From the industrial standpoint there is much to interest one in Denmark. A letter from Denmark of August 10, 1895, to the New York Evening Post refers to the high rate of intelligence among the agricultural population. A large number of high-grade industrial schools for men and women (of from 17 to 25 years of age) graduate many pupils annually who devote themselves to cattle raising and butter making. The women also become proficient in embroidery, silver work, pottery, cooking, joining, and cabinetmaking. An exposition held in Copenhagen in 1895 gave indications also of the intelligence displayed in these industries.

In Iceland, chief of the dependencies of the Crown of Denmark, an ordinance of December 4, 1886, conferred upon women the right to receive the degree of "bachelier ès lettres," and admitted them to the schools of medicine and theology in Reykjavik. For the course in law they go to the university in Copenhagen. Women may practice medicine, and may present themselves for examinations in philosophy and theology. Their success in obtaining degrees does not permit them to become Government functionaries, however.<sup>4</sup> Since 1882 women have been permitted to vote in connection with local administrative offices<sup>5</sup> and in the selection of the clergy of the parish. The instruction of young children in Iceland is given by the fireside, the mothers being the earliest teachers. Special schools for girls exist, where they are taught higher branches, needlework, and housekeeping, but it is the mother who (together with the clergyman) watches over the daughter's education in her earlier years.<sup>6</sup> Should the children fail to be prepared for confirmation great would be the chagrin of the parents, and especially of the mother. The long winter evenings are especially devoted to reading, to the study of folklore, and to inculcating knowledge of events in the country's history.

#### NORWAY.

The status of women in Norway may be learned from the following statements: A law of May 22, 1869,<sup>7</sup> "permitted the employment of women teachers in lower grade elementary schools;" a law of 1878,<sup>8</sup> "admitted women to graduation examinations from the middle schools;" one of 1882 "permitted women to enter for the 'examen artium' and 'examen philosophicum.'" This law was complemented by that of June

<sup>1</sup> Fröken Sofie Lauridsen passed the examination, and has been appointed manager of a farm belonging to M. Tietgen, an eminent Danish financier. This is the first instance, perhaps, of a woman's skill in agriculture being officially recognized.

<sup>2</sup> Miss Grundtvig is stenographer of the House of Representatives (Folkething) in Denmark and also director of Kvinden og Samfundet, a journal devoted to the interests of women and of society, organ of the Danish Association for Woman's Emancipation.

<sup>3</sup> I. Letter from dean of law faculty of May 14, 1891. II. *Essai sur la Condition Politique de la Femme*, par Louis Frank. III. *La Femme au Point de vue du Droit Public*, par M. Ostrogorski; Paris, 1892.

<sup>4</sup> *Essai sur la Condition Politique de la Femme*, par Louis Frank.

<sup>5</sup> *La Femme au Point de vue du Droit Public*, par M. Ostrogorski.

<sup>6</sup> Letter (1895) from the governor-general of Iceland.

<sup>7</sup> *Udkast til lov om det lavere Undervisningsvæsen i Kjøbstæderne*.

<sup>8</sup> *Lov om offentlige skoler for den høiere almindennelse*.

14, 1884,<sup>1</sup> which admitted women to university privileges, gave them the right of being examined, of taking the academic degrees, and of receiving scholarships and the benefit of legacies accorded to the universities. Since June 26, 1889,<sup>2</sup> they are also eligible to positions on school committees; in rural communes they have equal rights with the men in voting for the budget for all school matters, and for the appointment of inspectors. Women are also eligible to the position of inspector, and in 1890 there were four women elected on the visitors' board for the schools of Christiania. In Norway women have for the last six years been entitled to study pharmacy and to manage and own dispensaries, subject to certain conditions. In Russia, Finland, and Denmark there are also female apothecaries. Women are also studying arts and sciences in the University of Christiania. Higher normal schools have lately been opened by the Government for them, as an outgrowth of the results of the private training schools for teachers which have been in existence for years. A woman's course in manual training is now a feature of one of the largest private schools in Christiania.

In the "Beretning om Skolevæsenets tilstand i Kongeriget Norge for aaret 1890," it is said that 117,089 girls were under instruction in the common schools, that 18 private secondary schools for girls had 3,157 students, while 365 girls had passed the intermediate grade examinations. Evening schools for girls had 1,246 pupils; the courses for teachers of gymnastics were attended by 42 women, and 83 women received certificates from normal schools permitting them to teach in lower grade schools. The school of arts and trades at Christiania had 131 women in its courses; at Skien a drawing class had 23 girls attending; in three schools 28 women teachers were instructing in cutting, drawing, embroidering, etc.; a commercial school in Christiania had 58 girls in its classes. The number of women at the university does not appear either in that report or in the *Universitets og Skole annaler*.

#### SWEDEN.

The subject of woman's education in Scandinavia has been presented by Mesdames Collett<sup>3</sup> and Olivecrona.<sup>4</sup> The former says "Sweden stands first among our northern States in the movement for the elevation of women. She early outstripped them in a more lively and general interest in women's rights, and the result is that to-day the country is blessed with many noble reforms in this direction. This striking fact is unquestionably due to the liberal sentiments which Swedish men entertain for women themselves, as well as for the cause which these women advocate. From early times the men of Sweden have been considered to represent the specifically chivalrous virtues of our northern climes, and if the daughters of the land have not yet reaped the full benefit of this inestimable national trait, now assuredly the harvest time has come."

Frederika Bremer, in a novel called *Hertha*, published in 1856, first called attention

<sup>1</sup> *Essai sur la condition politique des femmes*, par Louis Frank.

<sup>2</sup> *Lois du 26 juin 1889.*—*La femme au point du vue du droit public*, par M. Ostrogorski, 1892.

<sup>3</sup> Mrs. Camilla Collett, the celebrated Norwegian romance writer, whose eightieth birthday was celebrated in Christiania in the early part of 1893, is a sister of the great Norwegian poet, Henrik Wergeland. At the head of the woman's movement in Norway, she has published many books of travel, literary criticism, stories, poetry, and is recognized as a woman of lofty ideas and profound judgment. It is said that no private person in Scandinavia, except perhaps Frederika Bremer, has done more to raise the respect for the northern woman. She died in the spring of 1895.

<sup>4</sup> Mrs. Rosalie Ulrica Olivecrona, wife of one of the most distinguished jurisconsults of Scandinavia, was born in Stockholm in 1823. For four years she was a teacher in South Carolina, where her favorite study, botany, led her to collect a herbarium of American plants containing more than 400 specimens. She has written numerous essays on social and educational questions, biographies, stories, and poetry; aided in founding "*Tidskrift för Hemmet*;" became a member of scientific and archaeological congresses, etc. Mrs. Olivecrona took a leading part in organizing the Swedish department of woman's work at the Vienna Exhibition and at the Philadelphia Exhibition. At the request of the Swedish commissioners her "*Weibliche Arbeiten, Schweden*" was translated into English for the Centennial, and into French for the Paris Exposition of 1878.

to what was considered to be injustice toward woman, and she may be considered the pioneer in the reforms which have aroused attention and proven that Swedish women, too, desire the highest form of education. Mrs. Olivecrona says:

"The movement for improving the education of women may be said to have been inaugurated by the establishment of the Wallin School, in 1831, through the efforts of Prof. A. Fryxell, the eminent historian. The next step was the opening, in 1859, at Stockholm, of higher classes for young ladies by some influential men who were eager to raise the level of female instruction. The tuition, which was gratis, was given in the form of lectures and private recitations, and embraced religious exercises, the natural sciences, mathematics, history, Swedish grammar and literature, French, hygiene, and drawing, the scholars being at liberty, however, to choose their subjects. This course of study was continued for three years, and having met with great success it led to the foundation of the Royal Seminary for the Training of Female Teachers (Kongl. Seminariet för bildande af lärarinnor), which was opened at Stockholm in 1861."<sup>1</sup> \* \* \* A normal school established in 1864 served as a preparatory school to this seminary and also "with the object of affording its students an opportunity of gaining some practical insight into the art of teaching." This school has been instrumental "in forming a staff of able and well-trained female teachers, who now are spread all over the country. The result is that in the present day (1892) no town with a sufficient population to maintain a higher school for girls will remain unprovided with one."<sup>2</sup>

In Stockholm there are eight or more schools of high grade for girls, all with the aim of giving women a good and thorough education. Gymnasial or advanced studies are added to the curricula of some of these schools to prepare pupils for university courses. In other cities of Sweden the higher education of girls is sanctioned, and it is stated that as early as 1883 there was scarcely a "provincial town of note which had not one or more high schools due to private munificence or supported by the community. Most of them are in charge of graduates of the Royal Seminary, at Stockholm, which is thus extending its beneficial influence all over the Kingdom. Several good and well-organized boarding schools are also to be found in the country."<sup>1</sup>

"Instruction for girls is, however, not gratuitous, as is the case in the public schools for boys, but there is a Government grant which makes it possible to furnish tuition to many scholars in straitened circumstances.

"The Swedish capital contains many special schools which are frequented by women. The Royal Academy of Fine Arts was, in 1864, made accessible to female students, but the number being limited to 25, many aspirants are annually turned away. The Industrial School was first opened to women in 1854. About 800, of whom a large proportion pursue technical studies, attend yearly this institution and are allowed to compete for prizes. The telegraphic school, founded by the Government, has many female pupils. There are more than a dozen commercial and calligraphic institutes which admit them. Several are conducted by ladies. The Royal Central Gymnasium is open to women who desire to teach or study gymnastics. As early as 1820 female pupils were admitted to this institution, and about 1864 a regular course of training was established for women."

Women have been admitted also to the Royal Academy of Music since 1854, and they have passed the examinations for organists, which includes harmony, singing, playing of the organ and piano. The position of musical director has also been attained by one lady, at least, who passed (after five years' study) the above-mentioned examination; also in counterpoint, the history and æsthetics of music, on the piano, violin, etc.

There are many women teachers in Sweden, and "even in grammar schools for boys competent women are accepted as teachers. Many have obtained diplomas as

<sup>1</sup> Mrs. Olivecrona in *The Woman Question in Europe*, by Theodore Stanton.

<sup>2</sup> Mrs. Olivecrona in *The Woman's Journal*, April 23, 1892.



gymnasts, and practice with success, both at home and abroad, pedagogic as well as medical gymnastics."<sup>1</sup> All trades and industries are open to women, and there is scarcely any branch of industry in which women are not found.

The fine arts are cultivated by Swedish women, several of whom have obtained distinction as musicians, painters, and sculptors; they have become proficient in the arts of engraving on wood and glass, in wood carving, lithography, modeling, painting on porcelain, and designing, map making, and photography. To these may be added art needlework, which has developed—since 1874—through the efforts of the Society of Friends of Manual Arts. This society aims to save ancient patterns and to revive modes of workmanship practiced by women of bygone days, and to introduce new modes based upon early national art.

Feminine *slojd*, taught to girls of from 7 to 14 years of age, under the supervision of the "Slöjd Inspektörin," Miss Lundin, was so fully described in the Report of the Commissioner of Education for 1891-92 (pp. 428, 429) that this phase of woman's training is here omitted.

The university education of women in Sweden was quite fully treated in the reports from the Swedish ladies' committee to the World's Columbian Exposition at Chicago, 1893. The statements are here appended:

"In Sweden women are found as teachers, head mistresses of schools, members of school boards, lady inspectors, authoresses in pedagogics, etc. The common (or national) school education has always been the same for both sexes, but parents not desiring to send their girls to such schools send them to the higher schools for girls, or to private classes, or have them taught at home by governesses. There are 124 'Högre elementarskolor för flickor' which fall under two heads: Endowed schools, having a State annual grant not exceeding 2,000 crowns. They are under State control, but at liberty to plan their instruction independently. They number 76. The schools not endowed belong to parishes, corporations, or private individuals. Connected with these schools are continuation schools, preparing for admission to the university or to the higher training college (admitting pupils at 18 years of age to a three years' course of training as teachers of the higher grade schools). They also train teachers or give a general education for practical occupations. Then there are the people's high schools for girls, belonging to the former class. They give general education and training in manual work. Free lectures on ethical-religious subjects are given in connection with these schools. Housekeeping schools, cooking schools, instruction in dairy work, instruction in needlework to teachers, schools for home *slojd*, all aid in the development of woman from the Swedish standpoint.

"The two universities in Sweden, that of Upsala and that of Lund,<sup>2</sup> were founded, respectively, in 1477 and 1668. From both women were excluded.

"It was not till the fourth decade of our century and in consequence of the movement for woman's rights, as well as for a higher standard of female education, that a call arose for the abolition of such an antiquated statute.

"At the Riksdag of 1865 a Swedish yeoman, Carl Johan Svensén, presented a bill for the admission of women to the universities. This bill occasioned a lively debate; one side pronounced woman to lack both physical and psychical power to carry on learned studies; the other side showed how unreasonable it was to form a decided opinion on that question when no opportunity had been given woman to try the power of her intellect. Her fitness for the professions of teacher and physician was specially put forth. The result of the debate was a petition for the intervention of Government demanding for women the right to pass the examinations prescribed by the law for becoming teachers and physicians.

"On the 3d of June, 1870, a writ was issued conferring upon woman the right of

<sup>1</sup> Mrs. Olivecrona, in the *Woman's Journal* of April and May, 1892.

<sup>2</sup> There are two private universities at Stockholm and Göteborg which are only a few years old. They admit women. The former has a department of mathematics and natural sciences, also of the humanities; the latter has at present a department of humanities. (Thesis of Dr. N. G. W. Lagerstedt, presented at Chicago Exposition.)



passing the examination for the university, and of matriculating at the universities, and of following the profession of a physician. Since that time the number of female students has been increasing year by year. This number, however, only comes up to about 1 per cent of that of the male students, who, however, in proportion to the population are too numerous.

"During the first years the young ladies passed their examination at some boys' school, but since 1875 the right of qualifying for the university has been conferred upon girls' schools also. At the present moment there are at least five schools that prepare female pupils for this examination.

"The examination for the university is passed either in the classical division (latinlinien) or else in the mathematical division (reallinien).

"The classical division comprises the following compulsory subjects of examination: Swedish composition, theology, Latin, French, German, mathematics and physics, history and geography, zoology and botany, and propædæutics of philosophy. Optional subjects are: Greek, Hebrew, and English; one of these languages is, however, obligatory.

"In the mathematical division classical languages are not studied, but the claims on knowledge in the three modern languages—German, French, and English—in mathematics, and in physics are greater than in the classical department and, besides, chemistry has to be studied.

"Most of the women have passed their examination in the classical department.

"Of the young ladies who have passed the examination for the university only about 38 per cent have matriculated at the universities. Some have gone back into private life and some have found employment as post, railway, or bank officials, or else as teachers. \* \* \*

"The theological faculty in the universities is not open to woman.

"At the faculty of jurisprudence there are several examinations, out of which the one for a 'candidatus juris utriusque' is the principal of those most commonly taken. It requires about five years' hard study. This examination has been passed by one lady, Miss Elsa Eschelsson.

"The course of study in the medical faculty extends over seven to nine years from the time of matriculation. Only two ladies, Miss Karolina Widerström and Miss Hedda Andersson, have hitherto finished their medical studies and are practicing as physicians, but a considerable number of women are studying medicine.

"The medical faculty in Stockholm (Karolinska institutet) is opened also to the ladies and follows the same rules for the examinations.

"The studies for the medical degree in Sweden are by some people considered to take too long a time. Surely the expensive studies are a drawback to many women in choosing this profession.

"The philosophical faculty is divided into a philological section and a mathematical-scientific.

"The examinations within both these sections are (1) baccalaureate (= filosofie kandidat), requiring several compulsory subjects arranged in different groups, and (2) licentiate, a scientific examination comprising one principal subject and two secondary ones.

"A licentiate, after having written a scientific dissertation and successfully defended the contents of it against opponents, chosen by the university, is created 'doctor of philosophy,' under ceremonies which have been in practice for hundreds of years.

"The baccalaureate with certain compulsory subjects and followed by one year's teaching at one of the State schools, qualifies for minor tutorship at these schools. The licentiate entitles to higher tutors' appointments.

"About 23 women have passed the examination first mentioned, whereas the licentiate has hitherto only been passed by one woman, Miss Ellen Fries, who publicly defended her dissertation, and was created Ph. D. in 1883.

"Several women have studied at the philosophical faculty without passing any examination, some have later on applied themselves to scientific work. The latter is particularly the case with those having studied zoology and botany at the faculty of sciences of Stockholm. This faculty, founded in 1878, has, like the faculty of philosophy and philology of Gothenburg, founded in 1890, from the first opened its lecture halls to woman. Sonja Kovalevsky, a well-known Russian mathematician, was for some years attached as professor to the former.

"The Swedish universities in Upsala and Lund—in spite of their old statutes, having no close colleges as is the case in England, for instance—present no difficulty to women for matriculating as university students.

"With their male fellow-students they have partaken in public and private instruction, they have also entered as members of the province clubs, into which the students divide themselves, and of other societies existing at the universities."

In Sweden among the most noted of societies for women are the Frederika Bremer Torbundet, which is a center for all literary and educational questions, and the Gift Dvinnas Eganderrätt, which presents the legal side of questions. Graduates from Swedish universities can hold a position in all higher schools, either for boys or girls. In commerce and medicine woman has many of the privileges accorded to man in the Scandinavian countries. (Reports from these societies.)

#### GERMANY.

The subject of the higher education of women in Germany is one of interest, but in the German-speaking countries there is less to be said in regard to that development than in some of the other countries of continental Europe. Dr. Wychgram,<sup>1</sup> director of the higher school for girls in Leipzig, says:

"Higher educational institutions for girls in Prussia, as throughout Germany, are due to private initiative, and their earliest mention was at the close of the eighteenth or the beginning of the nineteenth century. Established in parts of Germany then under French domination, they were taken in charge by the cities after the wars of 1813-1815. Differing greatly in the early part of the century, it is noticeable that after the formation of the German Empire (1871-1872<sup>2</sup>) these schools greatly developed. In the autumn of 1872, through the efforts of Dr. Noeldeke, of Hanover, the general German Association for the Higher Education of Girls came into existence. The unification of schools for girls, with a similar basis for all Germany, was its main object. Baden, Württemberg, Hesse, and Saxony gave official sanction to schools of a secondary grade; programmes were formulated, while in Prussia (in 1873) Dr. Falk, minister of ecclesiastical affairs, called together directors and directresses of girls' schools to deliberate upon the question of the education of women. The main demand made by the convocation was that of a recognition of the necessity of girls' schools of a higher grade. Owing to change of university and other causes, but little was accomplished, and the efforts were carried on but feebly until 1893, when the minister of public instruction announced general regulations for the higher education of young girls. These regulations were published in May, 1894, but they failed to recognize the girls' schools as educational institutions of a secondary grade, thus failing to give them the governmental sanction and position accorded in France. Still they are placed under the supervision of provincial school authorities. Another disillusion to those working for this movement was that, on plea of looking after the health of girls, only a nine years course (instead of ten, as formerly) was accorded to these schools, but, as Dr. Wychgram naively remarked, 'in that period the girls were expected to learn all the studies of a ten years course.' At the close of the sixteenth year the girls may join complementary courses, if they so desire, in history, the history of literature and art, natural history, and foreign languages, or even other branches, if sanctioned by the director. Thus girls may prepare themselves

<sup>1</sup> *Revue Internationale de l'Enseignement*, 15 Mars, 1895, pp. 245-260.

<sup>2</sup> The constitution of the Empire bears date of April 16, 1871.

for careers. Care is taken not to overburden the girls with home studies during the school course, an average of from one to two hours' work being all that is allowable at home."

During vacation period no study is allowed. The nine years course is as follows:

|                       | Elementary course. |       |      | Secondary course. |    |     | Higher course. |     |    | Total.    |
|-----------------------|--------------------|-------|------|-------------------|----|-----|----------------|-----|----|-----------|
|                       | IX.                | VIII. | VII. | VI.               | V. | IV. | III.           | II. | I. |           |
| Religion .....        | 3                  | 3     | 3    | 3                 | 3  | 3   | 2              | 2   | 2  | 24        |
| German .....          | 10                 | 9     | 8    | 5                 | 5  | 5   | 4              | 4   | 4  | 54        |
| French .....          |                    |       |      | 5                 | 5  | 5   | 4              | 4   | 4  | 27        |
| English .....         |                    |       |      |                   |    |     | 4              | 4   | 4  | 12        |
| Arithmetic .....      | 3                  | 3     | 3    | 3                 | 3  | 3   | 2              | 2   | 2  | 24        |
| History .....         |                    |       |      |                   | 2  | 2   | 2              | 2   | 2  | 10        |
| Geography .....       |                    |       | 2    | 2                 | 2  | 2   | 2              | 2   | 2  | 14        |
| Natural history ..... |                    |       |      | 2                 | 2  | 2   | 2              | 2   | 2  | 12        |
| Drawing .....         |                    |       |      |                   |    | 2   | 2              | 2   | 2  | 10 [ 8 ]  |
| Writing .....         |                    | 3     | 2    | 2                 | 2  |     |                |     |    | 7 [ 9 ]   |
| Manual training ..... |                    |       | 2    | 2                 | 2  | 2   | 2              | 2   | 2  | 14        |
| Singing .....         |                    |       |      | 2                 | 2  | 2   | 2              | 2   | 2  | 12 [ 18 ] |
| Gymnastics .....      | 2                  | 2     | 2    | 2                 | 2  | 2   | 2              | 2   | 2  | 18 [ 12 ] |
| Total .....           | 18                 | 20    | 22   | 23                | 30 | 30  | 30             | 30  | 30 | 238       |

"This programme of study is worthy of praise," says Dr. Wychgram; "the professor is left certain individuality of action. The home language (German) is taught analytically; foreign terms, which have crept into the language, are proscribed; the richness of the German literature is clearly made manifest. Composition is taught in its highest form, and the best types of poetry and prose are placed before the pupils. The arithmetical study aims to render the pupils capable of rapid solving of problems which deal with matters of everyday life, domestic economy, savings, care of one's fortune, etc. The study of history deals with ancient history, and brings one to present conditions in the different civilized nations, nor is patriotism neglected. Geography is studied from the physical and political standpoints; natural history includes the most important details pertaining to living things in their relation to man, also general hygienic rules; natural sciences include physics and chemistry, with special application to home life; the term manual training signifies more especially feminine handiwork, repairing, planning, and executing; also capability of judging of material employed in such work. Gymnastic exercises cover freedom of movement, tight lacing being avoided, swimming, skating, plays if not too rough, and general exercises for strengthening the body. One special course of satisfaction to those interested in these higher educational movements for women is that women are to be employed as teachers in some one of the classes of the higher division, for heretofore male teachers have had the preference in school work, but this higher educational movement is calling out the latent energies of the women, and the authorities are permitting her to prepare for such position and giving examinations for the purpose of teaching in these schools for girls. In Prussia courses preparing for such positions have been established at Berlin and Göttingen; women follow the courses for two years, during which they have opportunities for practical exercises, and then are authorized to take the examinations for professorships in the higher classes of girls' schools. The results of this plan are not yet proven, as the examinations take place in a year and a half. These efforts are watched with much interest in a wide circle, and at a meeting held in Berlin on October 4, 1894, the director supervising the schools for girls and who is connected with the ministry of ecclesiastical affairs, and the president of the Association for the Higher Education of Women discussed the situation freely. Their general attitude seemed to favor the new regulations, but they earnestly advocated a ten years' course (instead of nine) as requisite for the higher development of women, the optional complementary courses not being considered adequate for the purposes desired. They strongly urged the need of scientific training for women sanctioned by the Government, and also



the necessity of women as an adjunct to the director of these higher schools for girls. They also regret that the highest institutions for girls are not recognized and officially sanctioned by the Prussian authorities."

The progressive movements in connection with the higher education of women in Germany have been due in part to associations having the improvement of woman's condition in view. Attention was first directed to the many teachers and governesses out of employ, to the status of seamstresses, to women connected with commercial pursuits. In the early sixties a woman teacher's position in a Berlin school was vacant, and 114 women applied for the place. A monograph was presented in a meeting of the Central association for improving the working classes (Central-Verein für das Wohl der arbeitenden Classe), and as a result of the discussions the Lette-Verein was created, which in 1866 had 332 members and in 1883-1890 about 1,100.<sup>1</sup> The main object of the association was to aid women to carry on industrial work, but gradually different kinds of schools were established—such as industrial and commercial schools, cookingschools, those for the study of telegraphy, printing, domestic economy, modeling, etc. By degrees the success of the undertaking led to the establishment, under the auspices of the Lette-Verein, of schools giving a high grade of study to women, such as would prepare them for examinations similar to those in the gymnasia for boys and for university examinations. Other associations were established with the object of ameliorating the condition of women, among them the Allgemeiner Deutscher Frauen-Verein, located in Leipzig, which has been in existence since 1865, and is conducted solely by women, in contradistinction to the Lette-Verein, which owed its inception and organization to men. The Allgemeiner Deutscher Frauen-Verein presented petitions to the governing bodies of Saxony requesting a better status for women teachers, and as early as 1872 the higher education of women was advocated, so that they might be fitted for university courses and for the professions. In 1884 a fund was established which paid for two women students in medicine at Zurich University, and other amounts for higher study have been received since. The Frauenbildungsreform-Verein, established in Weimar in 1888, has scientific study, parliamentary forms, and various phases of the woman question as object. Various petitions were sent to the governing bodies of the different German States between 1888 and 1891 requesting the creation of gymnasia for girls (Mädchen-Gymnasia) so as to prepare for university studies. This association recognized the developments in secondary schools for girls—such as lycæums for girls (höhere Töchter-Schulen), etc., but its members desired the strictness of course and examinations found in the "humanistische Gymnasia" for boys.

On September 16, 1893, a Mädchen-Gymnasium was established in Carlsruhe, through the efforts of the Frauenbildungsreform-Verein, with similar instruction to that for boys. The girls must have finished their twelfth year, have had a six years course in girls' higher school. The annual fees are 200 marks (\$57.60). A similar gymnasium for girls was established in 1893 in Berlin, but it differs from that of Carlsruhe, as it requires graduation from the girls' higher schools (höhere Töchter-schulen), so that only a three or four years course is required in the gymnasium. Its object is to prepare women for university courses and for teachers in higher schools and academies, and to aid them in acquiring the scientific knowledge requisite for medical study.

In Danzig in 1891 real courses for women (Realkursen für Frauen) were opened. Girl graduates of high schools, or those having equivalent knowledge, were to be admitted to these courses, which are both theoretical and practical and are intended for women who desire to follow university courses, to prepare for a profession or for the teaching fraternity. Similar "Realkursen" were established in Berlin several years ago. The new gymnasia for girls and the real courses are due in the main to the different women's associations. The Berlin Vereinigung zur Veranstaltung von Gymnasialkursen für Frauen states that graduates from the "Mädchen-Gymnasia"

<sup>1</sup> Deutsche Rundschau, März 1896; Lexikon der Pädagogik, von Ferdinand Sander.



will be admitted to the philosophical and medical faculties of German universities. The plan of studies of Mädchen-Gymnasia is modeled upon that of the gymnasia for boys and includes Greek, Latin, mathematics, German, English, French, philosophy, the natural sciences. The fees for this gymnasial study are between 200 and 250 marks (\$57.60 to \$69.50), and with board for nonresident students, 1,200 to 2,000 marks annually (\$285 to \$576).

According to the "Bestimmungen über das Mädchenschulwesen die Lehrerinnen-bildung und Lehrerinnen-Prüfungen vom Monat Mai 1894," women teachers are to be required to pass more rigid examinations in future, but if proficient they are to be permitted to teach in one of the three upper classes in the girls' higher schools and to be associate principals with men, instead of being relegated to secondary positions.

These statements point to the fact that a reorganization of schools for girls is taking place in Germany; the new regulations of May 31, 1894, indicate important advancement in woman's education. Formerly women were only admitted as teachers in elementary schools or lower grade secondary schools. According to these regulations every place connected with secondary schools is opened to them. A second examination, called "wissenschaftliche" or "Oberlehrerinnen-Prüfung," in two special subjects permits the undertaking of original work. The training is similar to that in German universities for men. The opportunities for German women in the universities have been few in number, although the Prussian minister of education has been memorialized frequently to give women the same privileges as men in the universities.<sup>1</sup>

Among the different institutions for the higher education of women is the well-known Victoria Lyceum, in Berlin, which has lately celebrated its twenty-fifth anniversary. Established through the efforts of a Scotch lady, Miss Archer, of Edinburgh, it is under the patronage of the Empress Frederick. Commencing with about 100 students, it now has 1,400, who are pursuing a higher course of study, similar to a university course. Lectures are given in philosophy and natural sciences, but the lyceum is not empowered to grant degrees.

The different associations and the women engaged in special lines of work desired still other educational privileges, and in 1888, through the influence "of the Empress Frederick, a small sum of money was granted toward establishing advanced classes for teachers. These were to be on the lines of what is known as a university seminar. Each course was to occupy three years; the treatment to be thoroughly scientific and lead to independent work<sup>2</sup> from original authorities. At the end of the three years there was to be an examination, which it was hoped would win good posts in schools for the successful candidates. On these lines the examination was first held in 1891."<sup>3</sup>

Soon afterwards Göttingen opened courses of lectures, which were given by university professors, an attendance upon which required the passing of the teachers' examination, with five years' practice as teacher additional.

To be prepared for entrance into the German universities the maturity examination (Abiturienten examen) of the gymnasia is requisite. This is absolutely necessary in Prussia, but in some of the German States "the certificate of a Real-gymnasium suffices."<sup>3</sup> Even if this examination has been passed, there are still obstacles to overcome before women can become regular students. In Berlin the professors are generally opposed to women students, but, "as a matter of fact, six women are attending lectures here"<sup>3</sup> (1895). At Göttingen "a few women, chiefly Americans and English, have attended single courses by special permission."<sup>3</sup>

"At Heidelberg women may attend lectures in the scientific-mathematical faculty,

<sup>1</sup> London Journal of Education, September, 1894.

<sup>2</sup> The German University aims to equip for independent work rather than to train a largely cultivated class with no particular object in view.

<sup>3</sup> Miss Alice Zimmern in The Forum, April, 1895.

but only as Zuhörerinnen and by permission of the professors concerned. They may also take the doctor's degree in this faculty, and, in special instances, in the philosophical faculty, too, the condition in both cases being that the course of study leading up to the degree must be pursued at Heidelberg. The permission to attend confers no right to do so, however, and it may be withdrawn arbitrarily and at any time. The Zuhörerin has no rights.

"At Leipzig, as heretofore, women may attend, by permission, many of the courses of lectures, but they may not take a degree, and they are in no case recognized as members of the university.<sup>1</sup>

"At Jena similar conditions prevail, only here the required permission is still more difficult to obtain, application having to be made, first, through the university Cursus, to the grand ducal patron of the institution, and after that, in second instance, to the professor himself.

"At Freiburg women may attend as guests, Hospitantinnen (which is only another word for Zuhörerinnen), the lectures in the philosophical and medical faculties."<sup>2</sup>

The attendance at medical lectures is not of great value to women students, beyond the discipline of study, until the State opens its medical examinations to them.

On April 29, 1895, it was cabled from Germany that Miss Grace Chisholm, an English woman, had just taken the degree in philosophy at the University of Göttingen, with the express permission of the Prussian minister of education. This is the first degree ever taken by a woman at Göttingen since it became a university. It is stated that the Emperor has heretofore opposed the admission of women to the universities, and this is supposed to indicate a change of policy in regard to the higher education of women.

It is also announced from Berlin that Dr. Bosse, the minister of public instruction, has just sanctioned the admission of the daughter of an ecclesiastic to the Abiturienten examination at one of the Prussian gymnasiums. Minister Bosse's decision overruled that of the provincial pedagogic board, which refused the application, so that this decision has an important bearing on the future status of the higher education of women in Prussia.

#### AUSTRIA.

In the Austro-Hungarian Empire somewhat similar conditions exist in regard to the education of women as have been described under Germany.

Efforts are being made by those especially interested to give a higher grade of instruction to women desiring it. An article by Frau Johanna Leitenberger, author-ess and essayist, gives the general trend of educational movements:

"The women's movement in Austria has had two phases,<sup>3</sup> the economic and the educational. \* \* \* Institutions for the preparation of women for active employments are continually appearing everywhere in Austria. In the front rank stands the Women's Industrial Society (Frauen-Erwerb-Verein), which was founded at Vienna in 1866, and which has grown every year in usefulness and importance. In 1874 the society opened its school for the industrial training of women, and workshops, art studies, schools of design, etc., soon followed. A class in lace making is connected with the school, and the children of the poor lace makers of the Erzgebirge, of Bohemia, are taught gratuitously. But the aim of the society<sup>4</sup> is not simply to train the hand; it would also develop the intelligence of its pupils. It has, therefore, established a commercial school, formed classes in the French and English languages, and during the winter season courses of lectures on various artistic and

<sup>1</sup>The position of women students is peculiar at Leipzig University. Some pay fees, others do not; they have no status, and can not obtain degrees.

<sup>2</sup>The Nation, September 27, 1894.

<sup>3</sup>Johanna Leitenberger in *The Woman Question in Europe*, by Theodore Stanton.

<sup>4</sup>This society has 771 regular members, is worth \$70,000, and supports 16 schools and courses, which are attended by 1,666 pupils, 248 of whom are receiving a high grade of tuition.

scientific subjects are delivered under its auspices by competent professors and scholars. \* \* \*

"If we now turn to the general education of women, we find that great progress has been made during the past ten years, especially in Austria. The public and private schools for girls are infinitely improved. The establishment of girls' lyceums (Lyceen), which aim at the higher and broader education of women and which cover almost the same ground as the boys' gymnasiums, was a great step in advance, although they are far from meeting all the demands of the new era. Gratz has an excellent lyceum. \* \* \* The normal schools for training female teachers are of a superior order in many of the Austrian cities. \* \* \*

"The Society of Austrian Teachers and Governesses (Verein der Lehrerinnen und Erzieherinnen in Oesterreich), founded in 1870, takes care of the intellectual and material interests of its members. Its work may be classed under three heads: (1) Normal school and scientific instruction; (2) the spreading of rational ideas on female education; (3) the aiding of needy members. These objects are accomplished by lectures and discussions on pedagogic and scientific themes, by the use of a library and reading room, by participation in teachers' meetings and congresses, by the publication of the proceedings of the society in the newspapers. \* \* \*

"Although the doors of our universities are closed to females,<sup>1</sup> we possess many women who have pursued their studies abroad and who have acquired a reputation for their learning. Miss Rosa Welt, of Vienna, for example, is a graduate of Berne. During the summer semester of 1879 she attended the lectures on ophthalmology of Professor Mauthner, of Vienna, was admitted to the Rothschild hospital, directed by Dr. Oser, and was at one time mentioned as likely to become the assistant of Professor Pfliiger, of Berne, on diseases of the eye. The wife of Dr. Kerschbaumer, who has an institute at Salzburg for the cure of diseases of the eye, studied medicine at Vienna, became her husband's assistant, and now aids him in all operations and sometimes performs them herself. The orientalist, Mrs. Camilla Ruzicka-Ostoic, who has spent six years at the Imperial Academy of Oriental Languages in Vienna, and has passed brilliant examinations in Turkish, Russian, and Arabic, received from the Emperor a gold medal for her dictionary of Turkish-German transcriptions, and from the King of Bavaria the Ludwig's gold medal for art and science. In 1881 she established at Vienna a private school for instruction in the Oriental tongues, and gave free courses of lectures to ladies on the Turkish language. Miss Sofie von Torma has done some very good work recently in the investigation of antiquities at Siebenbürgen. She has a book almost ready for publication in French and German, and has lectured on her discoveries. Prof. A. H. Sayce, of Oxford, and Dr. Schliemann have both spoken in high terms of Miss von Torma's excavations. Miss Emilie Hörschelmann has lectured with success to women in Vienna on the history of art. Miss Amalie Thilo, principal of an important girls' institute at the capital, is well known for her lectures on pedagogics, that on the great names in the history of education being specially worthy of mention. In 1881 Miss Helene Druskovich, Ph. D., spoke before a large audience under the auspices of a Viennese society, and showed a large acquaintance with the Italian and other foreign literatures. Miss Susanna Rubinstein, Ph. D., has made a name both at home and abroad by her lectures and philosophical works. These are a few names selected from a long list of women who have proved that intellectual power is independent of her sex."

In Vienna modern movements in favor of the education of woman are indicated by the opening of a gymnasium, or secondary school for girls, through the efforts of the Wiener Verein für erweiterte Frauenbildung. This gymnasium, opened on October 10, 1892, has as its object the more thorough education of young girls in the higher educational branches. A similar society for the educational advancement of young women has been established lately in Budapest; its special aim, however, is to see that preparatory training for the medical and philosophical faculties of the university is given to young women.

<sup>1</sup> See statements in regard to the opening of the Hungarian universities mentioned later on.



The syllabus for 1895-96, sent out by the Wiener Verein zur Abhaltung akademischer Vorträge für Damen, indicates that this lecture course covers the field of science and literature quite thoroughly; even the literary study of modern languages is included. Most of the lecturers are "Universitäts-Dozenten," but a well-known painter will read about the history of art, and two actors from the Hof-Theater will give instruction in elocution and recitation.

Mme. Josephine Humpal-Zeman describes the attempts to benefit the women of Bohemia who, "like all Slavonic women, were always perfect helpmates of their 'stronger brothers,' good mothers and housewives, always busy. Still they were not deaf to the call of rising womanhood throughout the world, and in a comparatively short-time they have been able to produce more than 300 volumes of literature, besides numberless articles in various magazines and newspapers. They have started societies, the most prominent ones being those of the Red Cross, women's industrial unions, literary societies, and the well-known American Club of Bohemian Ladies, of which Miss Dix speaks in her memoirs, and the most important of all—the Minerva—a society for the higher education of women.

"This society, founded in 1891, sent a petition to the Emperor, asking him to open the doors of the celebrated University of Prague to women. The reply was that as soon as Bohemia shall have her young women prepared, this may be done. Then it was that the brave and gifted Eleuca Eliska Krásnohorská began her heroic undertaking. At that time there were no gymnasia in Central Europe, and the Bohemian women had to begin in an entirely new and untrodden path. Again, as in the time of Huss, Bohemia was to light the torch, so that others could see their way to progress.

"Headed by the editor of *Lěnsky Listy*, Eliska Krásnohorská, the poetess—the Bohemian Mrs. Browning—the society, composed of the best women and men of Prague, entered quietly upon its great and noble mission, and in about two months enough money was secured to turn a private house into a woman's gymnasium with 53 earnest young women as students, a fine faculty, a library, and a laboratory. This took Prague by surprise. Even the most sarcastic foes stopped talking about the 'long hair and short brains of women,' and their unfitness for any serious work. Such was the beginning. With persevering effort the society gained friends and donations. The girls worked, as the first students of Vassar had to work, and at the close of the year they convinced the last doubter, by their high standing in physics and mathematics and by their brilliant recitals in Latin and Greek. That this first year had not exhausted all the brave and knowledge-loving Bohemian girls, is proved by the fact that this year, the second year of the school, 30 new students applied for admission. Seven of the first-year students wish to enter the medical profession, and the Minerva again sent a request to the minister of education, asking that the students be permitted to enter the practice of pharmacy, and follow in the footsteps of their honored countrywoman, Dr. Anna Bayer!—the first woman in Europe to be appointed by the Austrian Government as state physician to Bosnia.

"During all these efforts, the students of the University of Prague showed earnest sympathy with the movement, generously offering encouragement to their sisters. After this successful opening to the women of Bohemia, the women of Vienna, Hungary, and other countries in central Europe began to write to Prague for information and advice, thus learning from the so often overlooked and ignored Bohemian how to prepare the way to the well-guarded road of learning for the women of Austria and Germany."

To this statement it may be added that a gymnasium, or college preparatory school, was opened in Prague in 1890. Its pupils have a similar course to that of the gymnasia for boys; the aim is to train for medical and academic departments of universities. A rigorous standard of scholarship is required, and so far the work is fully up to the standard. The first graduating class received its diplomas in 1894. It is also stated that the German University of Prague has granted women the privilege of attending the lectures as "*ausserordentliche Zuhörer*," but this does not give them any academic status.

<sup>1</sup> Also called Dr. Bayerova, see p. 956.



In Hungary the ministry has issued a decree providing for the admission of properly qualified women to the universities of Budapest and Klausenburg. The same decree authorizes the training of women for "the professions of teachers in female secondary schools, as druggists and as physicians for women and children."

#### SWITZERLAND.

As indications of the educational opportunities offered to the Swiss women, we quote the numbers of pupils and teachers reported under the Swiss school system, in the Report of the Commissioner of Education for 1891-92. In the elementary schools in 1891 there were 232,978 girl pupils; in the advanced elementary, 12,191 girls; in the continuation schools, 3,283 girls; in normal schools, 708 women; in the universities, 226 women students. The number of women teachers was 3,108 in the lowest grade, 192 in advanced elementary work, 70 in normal-school work. Noted by cantons, the per cent of women teachers was: Glarus, 0; Basel Land, 0.8; Appenzell i. R., 1; Thurgau, 2.7; St. Gall, 3.4; Solothurn, 4.5; Zurich and Schaffhausen, each, 8.4; Graubünden, 12.2; Aargau, 13.5; Lucerne, 13.8; Baselstadt, 28.6; Appenzell i. R., 29.2; Vaud, 37.6; Berne, 38.6; Freiburg, 39.7; Wallis, 45.4; Zug, 49.2; Uri, 50; Schwytz, 55; Geneva, 56.3; Tessin, 59.5; Neuenburg, 65.3; Nidwalden, 72.2; Obwalden, 73.7. Average in 1881 was 30.2, which was increased in 1891 to 33.3 per cent, although women teachers are no longer employed in the cantons of Appenzell i. R. and Schaffhausen.

The universities have been opened to women for the last twenty years. Zurich, Geneva, Berne, Neuchâtel, and lastly Basel, have one by one decided to give women the desired privileges. In 1894 the University of Geneva had 186 women in its courses, from Russia, Poland, France, Holland, America, Servia, and Armenia. Basel at first refused to admit women, but has now yielded to pressure, and allows women to matriculate regularly, but only as a matter of experiment. It is stipulated that, if the experiment does not work well, the university will again be closed to that sex.

According to statements made by Miss Marie Goegg (in the Woman Question in Europe, by Theo. Stanton) a petition was sent in October, 1872, to the "council of Geneva, asking that women be admitted to the University of Geneva on the same footing as men. \* \* \* The following table gives the number of female students who have pursued their studies at the Geneva University:

| Year.   | Sciences. | Medicine. | Letters. | Total. |
|---------|-----------|-----------|----------|--------|
| 1876-77 | 1         | -----     | -----    | 1      |
| 1877-78 | -----     | 4         | -----    | 4      |
| 1878-79 | 3         | 2         | -----    | 5      |
| 1879-80 | 5         | 4         | -----    | 9      |
| 1880-81 | 6         | 7         | -----    | 13     |
| 1881-82 | 8         | 6         | -----    | 14     |
| 1882-83 | 12        | 8         | 1        | 21     |

"This table shows that the number of students is steadily increasing.<sup>1</sup> The list, of female graduates up to December 31, 1882, gives 9 bachelors of science, physical and natural, and 1 doctor of medicine. In Germanic Switzerland, at Zurich, for example, the number of female students is much larger than in the universities of Romanic Switzerland, and they are for the most part Russians. The admission of women to the University of Neuchâtel dates from 1878, but few have profited by the concession. Fifteen ladies, nonmatriculates, have listened to a course of lectures on general history and the history of modern literature, and 1 female student has

<sup>1</sup> But still more interesting is the fact that, with one single exception, all of the female students have pursued scientific or medical studies rather than those of a literary nature.

matriculated, but up to the present time (May, 1883) no degree has been conferred on a woman."

It is generally conceded that the greater proportion of women who have studied at Swiss universities are Russians, hence an account of the experience of these ladies in their efforts to obtain the highest grade education, denied them in their own land, will be of interest. We quote from *Russian Women in Swiss Universities*,<sup>1</sup> by Louise Nydegger, who says:

"While Germany is still obstinately refusing women admission to her colleges, the Swiss universities have for a number of years received them on the same terms as men, and conferred upon them the same degrees. In the university laws and regulations there is no distinction made between male and female students. Both sexes assume the same obligations and receive the same rights on matriculating. Nearly two years ago this equality was extended a step further, when a woman was received as privat-docent in the faculty of law at the University of Zurich, which, in Europe, is a very remarkable position for a woman. The question of granting such a right to women was vigorously debated, not only by the faculties of two universities, but in the Federal Council of the Swiss Republic, until Dr. Emilie Kempin was finally received, on her application, into the body of university instructors. In March, 1892, she opened her course of lectures with a large attendance. \* \* \* It is a strange fact that even in Switzerland, where the same educational advantages are extended to both sexes, higher education for women, parallel with that for men, is not viewed at all favorably. If a young girl is to continue her education beyond what she gets at the secondary school, which she leaves at the age of 15 or 16, she is sent to some female institute. There she gets courses supposed to be especially adapted to the feminine mind and needs, consisting chiefly of modern languages, literature, history, and music, and there generally her education terminates. Indeed, public opinion is so strong that there are very few Swiss women as regular students in the universities. Perhaps the same men who sit in the Federal Council and help to keep the universities open to women would discourage, if not decidedly oppose, their daughters or sisters entering. Still, there are every year a fair number of women students matriculated in the three principal universities of Switzerland, at Berne, Zurich, and Geneva. Women of other countries come a long distance to avail themselves of the opportunities which Swiss women neglect at their own doors. In Berne there are at present two or three women from the interior of Siberia, who were six weeks in traveling from their homes. Among those from a great distance, there is one from Australia, one from Madagascar, and one from a colony of southern Africa. The total number of students in Berne has been something over 600 in the last few years, and about 80 of these are women. In Geneva there is very nearly the same proportion. The majority of these women are from various provinces of Russia and most of them are Israelites. \* \* \* There a few Bulgarian, German, and English women. Those of other nationalities are so rare that they scarcely count. \* \* \* Russian women have gone the furthest in emancipation, have acquired the most brilliant reputation in matters of intellect, and are most daring in enterprise, as compared with those of other nations. American women may have accomplished more, but they do not labor under the same difficulties as the Russians. \* \* \* As the Russians are by far the most numerous among the women students, women's standings and doings are measured according to them. But perhaps no class of beings has been more misrepresented than Russian women students; first, by the enemies of women's higher education; secondly, by those who do not understand their foreign ways and character and who judge them by their own limited standard. Both parties have united in overlooking their merits and in exaggerating their faults, or even in attributing to them such as they never had. They succeeded in so misrepresenting the character and conduct of the Russian women as students that they created a strong prejudice against them, which harmed

<sup>1</sup> In the *Woman's Journal* of November, 1893.

the cause of women's higher education more than any sound argument that could be advanced. Indeed, in order to understand these students, it is not enough to stand by and watch them, for it is true that they often may give cause for misapprehension. One has to be in the midst of them and live with them in order to know them.

"To one who does not regard them from the outset with a shallow prejudice above which he can not rise, they are interesting enough, as he observes them on the streets or in the university rooms and halls, conversing and gesticulating in their animated way. One not understanding their language might often think them quarreling when they are merely expressing their opinions on entirely impersonal questions. Most of them wear their hair short, and are quite indifferent in matters of dress. This has been made a severe reproach against them by those who devote more time and attention to their persons and less to their minds. But a still greater accusation made against them is their freedom in mingling with men. In Switzerland, the sexes have very few common interests, and few opportunities are granted them for associating before marriage. They live so much apart that as a rule they are embarrassed and awkward in each other's presence, and one almost wonders how they get to know each other before they are married, or at least engaged.

"But the Russians are raised differently, there being among them much more fellowship between men and women. Accustomed to regard each other as comrades and coworkers, they treat each other accordingly, in relations where there is no love concerned beyond the love every human being owes to his neighbor. Intellectual pursuits, especially, can create between men and women relations into which love does not necessarily enter. As there are also a number of Russian male students at the university, the two sexes naturally preserve the same bearing toward each other. Thus, while two young Swiss of opposite sexes can scarcely take a walk or attend an entertainment together unless they are engaged, the Russians think nothing of going to each other's rooms for study, of walking together at any time of the day or evening, even until late, or of assisting each other in various ways. This freedom, so natural and hence so allowable, has given rise to the gravest misinterpretations on the part of those who are accustomed to an artificial system of intercourse, and who have deeply rooted in them its notions of decorum. On this account, it has even been seriously argued that the mixed attendance of men and women at the universities leads to immorality. To make appearances worse, most of the women study medicine, and are with the men not only in the lecture rooms, but in the anatomy classes, in the hospitals—in fact, everywhere. It may be true that many things come up which are painful for a young woman when she has to face them in the presence of men; but science calls for the greatest objectivity, and a woman who is earnestly devoted to her work will soon acquire it. Does it lower a woman's dignity if, for the purpose of some day relieving pain, she rises above the idea of sex and remains calm in situations where otherwise she would be overwhelmed with shame? She is no more unwomanly for doing this than a man is unmanly under the same circumstances.

"The Russian women are animated and excitable in temperament. Each of the three university cities named above has quarters where a large number of the Russians live near each other. Generally they rent rooms and prepare breakfast and supper themselves on an alcohol lamp, taking their dinners at some boarding place. They communicate little with those outside of their own nationality. This is due not so much to exclusiveness as to lack of opportunity for contact with others, and, to some extent, to the language. It is not hard to make their acquaintance if any one seeks it, for they are cordially sociable and very hospitable. A cup of tea, which they prepare deliciously with the addition of a slice of lemon or some other fruit, is offered you at any time of the day when you may enter their room, and you are soon set at ease by their frank way of treating you.

"Of those that come to the universities of Berne and Zurich, almost all have at least a theoretical knowledge of German when they arrive, so that they can very



nearly understand the lectures, though they may not yet be able to speak well. Often they understand, read and write the language much better than they can speak it, for want of practice, because they always converse in Russian among themselves and have little opportunity for conversation in another language. Some can speak fluently when they arrive, having studied German from childhood. It is the same with the French in Geneva, only a larger number know this language at the outset, it being more popular in Russia than German.

"Of course, the difficulties of university study in a foreign country are much increased for those who come with little or no knowledge of the language, but there are a few such. However, the Russians have great facility in learning languages, and are very good at conversation. Even before they have quite mastered a language they can express their thoughts remarkably well, aptly steering around the terms with which they are not yet familiar. To this ability to express themselves is added that other, so essential to good conversation, that of calling forth the thoughts of others. They talk with a certain animation and candor that makes them very genial. There is scarcely a subject of general interest that one can not discuss with them, but they are interested especially in the social questions of the day. It is natural that their attention should be turned to such questions, considering the social conflicts and wrongs which agitate their own country and from which so many suffer. Bellamy's *Looking Backward*, for instance, is a book that was eagerly read by them at one time.

"It is remarkable, too, how much they have read, even before coming to the university. The Russian girl of the better classes grows up doing scarcely anything about the house, for servants are very cheap and plentiful in Russia, and manual labor is despised. Thus she has the whole day to herself, and the intelligent spend it in reading and study. Even part of the night is spent in this manner, they are such insatiable readers. From a very early age they read enormously and indiscriminately, science, history, novels, poetry—everything which falls into their hands. \* \* \*

"The ideal of the intellectual young girl is to go to a foreign university, where she can study in a freer atmosphere and have more advantages. To this may be added a desire to see the world, to enjoy life, and to be perfectly independent. She has visions of happiness and activity to be found far away, which sometimes end in disappointment, for even there other difficulties come up which do not enter into her dreams. Often she has to struggle long and hard with parents and relatives before they grant her wish, because, being less enthusiastic, they take more account of the danger and responsibility of such a step. \* \* \* But she is determined in her purpose, and at last she gains the victory. Often she leaves home before the age of 20; but, as a result of her eager and varied reading, her mind has matured early. At that age there is scarcely anything of note which she has not read. Besides Russian literature, she has read the chief works of the principal foreign languages, either in the original or in translations. She has a good memory for what pleases her. Some can recite long passages, not only of such writers as Lermontoff, who is a favorite among Russian youth, but also of Shakespeare, Schiller, Goethe, and others. Even long after having read anything they can give a clear outline of it, which shows that they read with understanding as well as with rapidity. Marvels of intelligence and precocity are not infrequent among them.

"In Berne there is a young woman from Odessa in the law school, the only female law student there until last term. She left home very young. As she had musical gifts, she was sent to a conservatory in Vienna. She stayed there nearly a year, but music alone did not satisfy her, and she begged her parents to let her go to the university. She entered the school of medicine in Berne, and after a year's study found again that it was not what she wanted. She then changed to the law school, in which—the studies being congenial to her—she persevered. Last year she won a prize in competition with her fellow-students by a dissertation on a given subject; and this was awarded her for real merit, not through gallantry. Gallantry is not



carried so far in Europe when woman competes with man. In the discussions of the class room she is also remarkable for her quickness and ability. As one of the other students said, 'She speaks long before we are ready to say anything.' Some time next winter she will take her examinations for the doctor's degree; and she was only 22 last month. In addition, she plays well on the piano, and has much knowledge outside her special line of study. She is a vivacious little thing, very nervous, with delicate, intellectual features. When she becomes animated and absorbed in discussion, destruction to everything she takes in her hand just then.

"About two years ago another young woman passed a brilliant examination for the degree of M. D. at the age of 22; and at the Swiss universities the study of medicine requires at least five years' study, besides a good preparation before beginning.

"Many of the Russian students come to the university with slender means. The last few years especially have been hard for them, for the ruble, whose nominal value is 4 francs, was actually not worth more than 2.30 to 2.60 francs in foreign countries. But a characteristic trait of the Russian students is their generosity and helpfulness toward each other. There is among them a treasury to which those who have abundance contribute for their less fortunate compatriots. Then, during each semester, there are 'evenings' given, the profits of which are also used to aid poor students. These 'evenings' are held in the hall of some hotel or restaurant, and tickets of admission are sold. There are no waiters; the students prepare and serve the refreshments themselves. Tea is the principal beverage, and the famous 'samovars' stand on sidetables. \* \* \*

"As the attendance on these occasions consists of students and their friends, the 'evening' becomes a gathering for social enjoyment. They are delightful diversions from the work of the semester, and everyone seems to be gay and happy. To increase both amusement and profit, there is a table with trifles for which lottery tickets are sold. There are tables with fruits and candies and all sorts of sweet things to tempt buyers. When the attendance is thought to be nearly complete, the talk and laughter is hushed for a while and everybody's attention is turned to the stage. A little drama, recitations, or tableaux are given. Later, dancing is begun and occupies the rest of the evening. According to traditional notions of womanliness, the women medical students are now 'womanly,' for they have laid aside dissecting knives and text-books, and enjoy themselves in the ballroom just like society women. \* \* \*

"The more bold and active among them take a keen interest in the workingmen's movements of the city in which they study, attending their meetings and entertainments. There is often a close sympathy between the Russian students and the working classes. \* \* \*

"Another organization among the Russian students of both sexes is that connected with a library and reading room which they support by monthly contributions. When quarrels arise they even have a sort of tribunal to settle matters. Sometimes a punishment is inflicted, i. e., that thereafter none of the students shall speak to the culprit. Thus, outside the university they lead a life of their own, apart from the rest of the students.

"It is touching to see how some of them endure privations for the love of study, or for the sake of living with more freedom in a foreign country, or for both reasons combined. Such students live in a small, simple room, preparing their own meals on an alcohol lamp, and of course their food is very plain, consisting of little but porridges, bread, and tea. But, even under such circumstances, they do not forget to be hospitable, and would share the last morsel with any fellow-creature whom they considered as a guest. Indeed, they often are each other's guests, and the idea of wealth or poverty does not seem to enter into their relations. In the same way, they are free about lending and borrowing money, which they usually receive in

monthly sums. Those who have money give as long as they have any, and when it is gone they borrow in their turn until they are again supplied.

"The study of medicine is a long and hard study, and those Russian women who pursue it, even under difficulties, have little assurance that it will ever gain them a living. For this reason it seems strange at first that the majority devote themselves to it, while only a few follow other courses, such as natural science or literature. But medicine affords them more chances of activity than studies in another direction, even though women are not allowed to practice it in Russia. They practice in a sort of underhand way, as assistants to some masculine relative or friend who is a doctor. But they have no right to give prescriptions, and, of course, more or less danger is always connected with work of this kind. Some go to Bulgaria, Servia, or Roumania, where the law allows women to practice; and a few settle in Switzerland. But in this latter country it is hard for them to acquire a practice unless they have influential connections among the professors; first, because there are plenty of good native doctors, and secondly, because the prejudice against feminine doctors is still strong.

"Others go to America, allured by glowing reports of woman's position there, of unbounded freedom and lucrative work. The destiny of these differs widely. Some may be fortunate in the New World, while of others rumors have floated back to their friends in the Old World that in spite of university diplomas and doctors' degrees, they were obliged to work in factories. The latter is quite probable; for, coming here without friends or protection, strangers to the country and its ways, they fail to obtain the position for which they are qualified, and at last are forced to resort to manual labor. Perhaps Americans do not extend to them the sympathy which they merit, receiving them coldly and even with distrust as foreigners.

"A good many, especially of the wealthier class, study simply for the love of study, without expecting to apply their knowledge. They study medicine because it is the most positive science there is at present, and seems best adapted to their bent of mind. However, that does not hinder them from acquiring much knowledge in other directions. It is even remarkable how they adhere to the study of medicine, in spite of other qualifications more promising. In Geneva there is a young woman from Odessa, now studying medicine for the third year, who has a voice of rare beauty, and who is very graceful and prepossessing. She has often been urged, by persons highly capable of judging in such matters, to cultivate her rare gift, as it would be a sure way to fame and fortune. But no prospect, however flattering, can induce her to abandon the study of medicine, which she pursues with the intention of some day devoting herself to philanthropic work. Of course she does not entirely neglect her voice, and sometimes contributes to the entertainment on those 'evenings' mentioned before, or sings at smaller gatherings of her friends.

"As a rule, the Russian student has a great capacity for work. When preparing for an important examination, for instance, she stays shut up in her room, lounging half dressed upon a sofa and studying for days together. Her friends, knowing how she is occupied, visit her but little, unless to study with her. This she can keep up week after week for a long time. But, ordinarily, they believe in having enjoyment, too, in their college life, and they have many gay times, visiting each other, entertaining company in their rooms and drinking tea together, or frequenting the theater. Sociability is highly developed in them. As they are usually lovers of nature, and the university cities of Switzerland have such beautiful surroundings, long walks and rambles are another source of pleasure and recreation. But those who come to the university simply for the sake of leading a freer life and having more enjoyment than they could at home, and who do not work seriously, are rare, though occasionally such can be found.

"Often they study after they are married, and sometimes husband and wife are both in the university. Among the married women, two must be mentioned, although they are not students themselves, for the sake of the support which they have been to their student husbands.

"Recently a gentleman passed his examination for the M. D. degree at the University of Berne who had been an exile in Siberia for several years. When sentenced he was engaged, and his betrothed followed him voluntarily into exile, where she was married and faithfully shared his hardships. When he was free again they went to Berne, where he entered the university. Their means being insufficient, the wife returned to Russia as a governess. A few months before his examinations she came back to Berne to help him in another way. While he stayed at home all day studying and reviewing, his wife got their notebooks from other students and copied the lectures which he was missing, besides copying the thesis which he had to write for his degree.

"The wife of the second gentleman has two small children, and can not go away to work, but nevertheless she largely supports the family while her husband studies. From 20 to 30 Russian students get their dinners from her everyday, and she does all the work alone—even sews and mends for some of them, besides having the care of the two children. There are few comforts in her home, it being in a somber garret story, yet she is not one of those women who are always complaining of being tired and worn out. She is always bright and cheerful, though often she does look worn.

"Pessimistic tendencies are common among the Russian students, and this seems inevitable in their conditions. \* \* \* The more intelligent anyone is the more acutely he suffers in such a life, especially when he feels the impossibility of doing anything to change it. With an active mind and an intense desire for knowledge, the intellectual Russian girl has a constant longing, which impels her to go to a foreign university in the hope of satisfying it there. She spends years of study abroad, enjoying the free atmosphere of the Swiss Republic as well as its natural beauties, and moving in a circle of congenial compatriots. Still there is in her, like an under current to a gayer temperament, a strain of melancholy which sometimes gains the upper hand. When her university career is over, the chances of a congenial activity to follow it are few. In Russia she is limited to the domestic sphere. \* \* \* To remain for the rest of her life in a foreign country would be hard, too, in many respects, even aside from the fact that it often means separation from her parents. Thus, the longing with which many come is still unappeased, or even more intense, when they leave the university with a degree, unless it be terminated in happy married life." \* \* \*

#### GREECE.

"Since 1890 the university at Athens has been opened to women; until that date women who desired a higher education were obliged to go to the universities of Europe, because they could not obtain this higher instruction in Greece."

This statement would seem to imply that the women of Greece had not previously received a high degree of education, and in a measure this is true; but, dating no farther back than 1836, it is stated that an educational society was formed with the object of educating the women of Greece. Through the efforts of this society, and "with the generous help of M. Apostolos Arsakes, an Epirote Greek, the Arsakeion<sup>1</sup> was built. It has now 1,500 pupils and a capital of 1,300,000 drachmas (\$250,000), and has yearly subventions from the Government and local governments. The pupils, many of whom become schoolmistresses, are supposed to spend six years in it after having spent three in elementary schools. There is an infant school under the same management. There is a similar school for girls at Kerkyra, founded in 1868, with over 200 pupils, as well as at Eleusis, Gaurion, Kotachovon, and Menidi. The society has in its service altogether 40 professors and 59 schoolmistresses. From 1836 to 1890, 43,963 pupils have passed through these schools, of whom 2,500

<sup>1</sup> See Greece under King George, by R. A. H. Bickford-Smith, M. A. (student of the British School at Athens), London, 1893.



have become teachers. The number of pupils of the Arsakeion has been in different years as follows:

| Year.     | Pupils. | Year.     | Pupils. |
|-----------|---------|-----------|---------|
| 1836..... | 150     | 1876..... | 1,432   |
| 1846..... | 224     | 1886..... | 1,471   |
| 1856..... | 650     | 1890..... | 1,500   |
| 1866..... | 595     |           |         |

Total expenditure, 8,944,295 drachmas (\$1,727,048).

" \* \* \* The amount of money spent on the Kerkyra school has been 1,108,379 drachmas (\$213,957), which is included in the above total. Its total pupils number 4,618. Over 3,000 girls have passed through the other four schools, which have been founded nearly thirty years. Two hundred and fifty of the poorer girls receive this higher education without payment. The expenditure on the six schools in 1889 was 227,041 drachmas (\$63,119). There are a good many private schools for girls in Athens. The result of all this effort is that Greek women get a very fair education, and can get a very good one. The girls, however, do not make anything like the use of the schools that the boys do, chiefly through parental dislike to trust them out of sight, a prejudice which is not yet entirely unreasonable, though it is no doubt a legacy from Turkish times. This is gradually being overcome, and then no doubt the girls will be allowed to take advantage, to the full, of the ample opportunities offered to them."

In elementary schools in 1889 there were 18,886 girls pursuing the course of study (boys 78,815).

Another writer<sup>1</sup> gives an interesting description of the Arsakeion, and of the *Ouvroir des Femmes Pauvres* (half factory, half school). We quote:

"There are two fine institutions which do much to further the interests of women in the famous Grecian capital. It is so natural to associate Athens with a past glory, and therefore with retrogression, that it is a surprise to meet with modern institutions of such excellence as the Arsakeion and the *Ouvroir des Femmes Pauvres*. The former is an unusual and most successful combination of a boarding school, private day school, and high school on an extraordinarily large scale; for the scholars, all told, number nearly seventeen hundred. The needs of so vast an undertaking are amply filled by the spacious building which was founded by a generous Greek in 1836, and has since been largely supported by donations, the boarders paying but 100 and the day scholars 35 francs a month. An air of neatness and order pervades the whole structure, which is of stone, with bare, austere walls. In that part of the building frequented by the day scholars, and which is at the same time the home of a large number of girls, is a pretty chapel, a good library, a room full of scientific instruments, another where courses in dressmaking take place, and a wing which answers the purpose of a school for music, both vocal and instrumental. Drawing and painting are poorly taught, no freehand work being required. Although the curriculum includes the study of the French language, all the lectures and lessons on the sciences, history, and literature are given in the soft and melodious Greek, to which it is a pleasure to listen, even without understanding what is said.

"The scholars, who belong exclusively to the middle class, are orderly and attentive pupils, but unprepossessing in appearance. There are few bright and fewer pretty faces to be seen; the almost entire absence of blondes is most striking, and the cast of features is decidedly Jewish in character. The unhealthy, sallow complexions are no doubt in part due to the fact that the windows in all the class rooms

<sup>1</sup> Helen Elise Villard in the *Woman's Journal* of November 24, 1894.



are kept hermetically sealed. In the dormitories, however, which accommodate from 15 to 30 girls, the windows are left open all day. These lofty rooms are even barer than hospital wards, for there is not so much as a chair to be seen.

"A short distance from the great Acropolis, and almost opposite the mighty pillars of the Jupiter Temple, stands a modest-looking building, which gives employment to and thereby saves from want 400 women and girls. The *Ouvroir des Femmes Pauvres*—half factory, half school as well—has existed for twenty years. It was first organized and has since been managed and directed wholly by women. It is a charity only, inasmuch as it furnishes so many poor and ignorant women with the means of learning how to gain a livelihood, and the opportunity of doing so as soon as this has become possible; for the various useful and ornamental things manufactured in the building find a large sale.

"The visitor is first ushered into the sales and exhibition department, which is very like those of the American Women's exchanges, and presided over by ladies who are indefatigable in showing the different articles and explaining how they are made. There are rugs and carpets indestructible, but hideous; characteristic many-colored Greek table covers; pretty silk goods, both plain and fancy; silk and cotton crepes; muslins, with silk stripes; soft scarfs of exquisite shades; gauzy handkerchiefs, with borders equally delicate in color, and with 'Athens' embroidered in Greek letters in the corner; embroideries of all kinds, and a very large display of most beautiful underwear. These daintily stitched and embroidered garments, with their pretty ribbons and laces, have a truly Parisian air and are much in demand for trousseaux.

"The other rooms on the ground floor are given up to the manufacture of materials, which are spun and woven with incredible rapidity and skill by young and old. Hand and treadle machines are used throughout, except in the room where bright silks for the fabrics are spooled by machinery. On the upper floor, more goods are manufactured; but the chief industry is the cutting and making of underwear.

"Small children are taught how to hem and tuck in one room, older little ones embroider the initials on the handkerchiefs, while the girls who have become skilled workwomen make whole garments under the supervision of one or two teachers and matrons. Then there are rooms where the carpets and table covers are made, 12-year old girls and old women working side by side, as in the other manufacturing departments. The countenances of all the workers verify the assertion of the principals that they are not only industrious, but thoroughly good women and girls. However busily at work, they always find time to greet the stranger with a friendly smile or nod; and although they are all of the lower class, the girls are brighter looking and more comely than the pupils of the *Arsakeion*. Indeed, there are some strikingly beautiful faces with classic features, and coloring as dark and rich as that of the Italian maidens. There are one or two little boys among the workers, who exhibit their handiwork with much pride. Work begins at 8 and continues until noon, when a simple but hearty dinner of soup, meat, and vegetables is to be had for the trifling sum of 15 centimes, after which work goes on again till 5. The wages vary according to the amount and quality of the labor, but the highest do not exceed 5 drachmas, which is less than half a dollar, owing to the depreciation of paper money. Fortunately, the cost of living in Greece is correspondingly low."

Mme. Callirrhoe Paren, editor of the *Ephemeris ton Kyrion*, of Athens, reviews the situation in Greece by stating that—

"The admission of woman to the university and to the Polytechnic, the extension in wider circles of her industrial activity, her eligibility to membership in the examining committees of the public schools and in the examination of teachers for diplomas, the preparation already made by a progressive government for her technical and special education, the diffusion of her philanthropic activity gradually through the country, the establishment of schools on Sunday for the secular education of girls and women who are employed during the week, are victories for which we

may raise trophies upon the thorny road we have traveled, so that we may go forward with courage in the companionship of all those truly desiring and laboring for domestic and social prosperity."<sup>1</sup>

## ITALY.

No law of the Kingdom forbids women entering the universities and taking degrees, and within a few years several women have reached the doctorate in medicine and literature. Viewed from the historical standpoint, Italian women distinguished themselves in poetry and prose even prior to the Renaissance, and during that period they held positions as professors in the universities of Italy.

In the fourteenth century La Donna Abella, a woman physician, had quite an honored reputation, and in later centuries there were women professors of sciences and the classics; among them Bettina Gazzadini, a most distinguished savant; Laura Bassi Veratti, lecturer in philosophy at Bologna; Gaetana Agnesi, Clotilde Tambroni, celebrated for Greek improvisation; the beautiful Novella d'Andrea, and Laura Cereta-Lerina, who was professor of metaphysics and mathematics in Brescia; Elena Lucrezia Cornaro Piscopia, of Venice (1646-1684), who became doctor in philosophy in 1678.<sup>2</sup> These and many other learned women are grouped together in the annals of the Italy of past centuries.

In the sixteenth century, "so rich in illustrious women,"<sup>3</sup> there was scarcely an important city without its poetess; the intellectual women disappeared with the fall of the Italian republics, but from that epoch "dates the creating of various religious orders for the education of girls."<sup>4</sup> As early as 1779 an institution for girls (*Educatore femminile* Maria-Delaide) was founded in Palermo. The professional instruction of women was first advocated by Laura Mantegazza, who founded the earliest professional school in Milan, with the object of giving girls such instruction in industries as would lead to independence if united to higher moral and intellectual education. When Napoleon I was in control in northern Italy a girls' college (*Collegio reale di fanciulle*) was established in Milan. From 1822 to 1830 the Austrian Government, then dominating, organized 14 intermediate and 1,044 elementary schools for girls. The Casati law of 1859 placed elementary schools for girls in charge of women teachers, and decreed the establishment of normal schools to prepare for such work. In 1861 a girls' college of high grade was established in Milan and one in Turin in 1866. A higher normal school for women in Florence dates from 1882.<sup>5</sup> At a later date it is stated that the higher educational institutions for girls and the "magisteria," or special normal schools, "answer the purpose of general culture for women rather than that of normal training, for which they were created."<sup>6</sup> The same writer states that "the culture of Italian women, as noted in the attendance at the normal schools, has progressed everywhere. The pedagogic direction of the kindergarten, of the Sunday schools, as well as of the inferior classes of the elementary schools, is now intrusted to female teachers. A group of distinguished and well-educated women, known in literature, have undertaken, by means of lectures and the press, to secure such a law as will afford women the same treatment as is accorded to male pupils."

Signor Bodio, director of the Royal Statistical Bureau in Rome, says: "Women are admitted to both classical and technical schools; in 1891 there were 1,498 women in attendance. There are also technical schools for women exclusively. Women are admitted to university privileges, and are most frequently to be found in attendance upon the faculties of natural sciences and of medicine and surgery. Among the women who frequent the institutes of a higher grade than secondary schools the

<sup>1</sup> Rev. S. J. Barrows in *The Woman's Journal*, January 11, 1896.

<sup>2</sup> Vide "La donna italiana descritta da scrittrici italiane in una serie da conferenze tenute all' Esposizione Beatrice in Firenze, 1890."

<sup>3</sup> Says Rosalia Amari.

<sup>4</sup> Dora d'Istria [Princess Hélène Koltzoff-Massalsky], authoress of historical, poetical, social, and literary books.

<sup>5</sup> From *The Woman Question in Europe*, by Theodore Stanton.

<sup>6</sup> Vide *Education in Italy*, by Alexander Oldrini, Report of Commissioner of Education for 1890-91.

majority attend special courses of study, but do not endeavor to obtain academic degrees."<sup>1</sup>

While the number of women students in all grades of schools, especially those of the highest grade, can not be definitely stated, it is of interest to know that there were 15,894 women studying in normal schools in 1891-92; in evening and holiday schools, 64,379; in private schools, 124,733; in the public elementary schools, 1,033,547; while the rudiments of instruction were given in the same year to 142,928 girls in kindergarten and infant schools. Connected with the convitti, or boarding departments of schools, were 49,726 women, of whom 3,539 were engaged in special studies.<sup>2</sup>

In the 5 institutes for instruction in music which receive Government subsidies there were 305 women students out of a grand total of 870. In some of the normal schools the elements of agricultural science are taught, and in 1890-91 there were women under instruction in 11 normal schools. Studying for the position of instructress in normal schools, or in schools above the elementary grades, were 181 women in 1890-91. The course of study covered Italian language and literature, French, German, and English languages, history, geography, mathematics, physics and chemistry, logic, psychology, hygiene, and drawing.<sup>3</sup>

In contradistinction to the statements herewith presented, an interesting article on the education of Italian girls is cited in part. It is from the Signora Zampini-Salazar, who was one of the Italian ladies at the Woman's congress in Chicago in 1893:

"As regards a desire for knowledge among Italian women, it is reduced to the smallest proportions. Those in the lowest station of life have become the only class who study at all, and these mostly obtain positions as teachers. Of all classes probably the country girls make the best wives and mothers, and become devoted to their families when not led away by an imprudent ambition to seek their fortunes, and too often to find their loss, in the great centers of industry. Few efforts are made to establish local schools of technical instruction in these villages and rural communities. Prof. Ruggero Bonghi has lately succeeded in establishing a first-class girls' college at Anagni, near Rome, for the daughters of teachers. The new institution, patronized by Queen Margherita, and bearing her name, promises to become one of the most practically organized in Italy. The education given there is adapted to the needs of the social class to which the girls belong. One of the most recent innovations is a special section of instruction in practical agriculture and dairy work.

"A distinguished Italian lady, Signora Aurelia Cimmino Folliero de Luna, has also had notable success in establishing a rural school for girls in northern Italy.

"The new minister of public instruction, Senator Pasquale Villari, understands the need of reforming female education. His predecessor had already shown that his interest in it lay not by words only, but by deeds. He lately ordered all the institutes of fine arts in Italy to be opened to women, so as to encourage them in art culture. Having heard how deficient was female education in convents and national colleges, he charged Commendatore Gioda, who was at the head of ordinary and popular instruction, to inspect girls' colleges throughout Italy and report officially on their state. His report is most valuable to anyone interested in Italian girls education, for it gives a very clear idea of its present state. We have now in Italy, throughout the various provinces, 1,584 female colleges, thus divided:

|  |       |
|--|-------|
| Entirely supported by the Government .....   | 5     |
| Established by the Government and variously self-supporting .....                              | 42    |
| Established by the provinces or cities .....   | 73    |
| Established by private associations, and having the character of charitable institutions ..... | 804   |
| Private boarding schools .....   | 660   |
| Total .....  | 1,584 |

<sup>1</sup> Signor Commendatore Luigi Bodio; vide Report of the Commissioner of Education for 1890-91.

<sup>2</sup> See *Statistica dell' Istruzione Secondaria e Superiore*, anno 1891-92.

<sup>3</sup> Vide article by Signor Commendatore Bodio, director of Royal Statistical Bureau, Rome, Italy.

<sup>4</sup> Signor Baccelli now fills that position.



"In these colleges, many of which are convents, 47,358 girls are boarders, while 29,294 daily pupils attend the schools and receive their education there. So Italy has at present 76,652 young girls being trained to be sensible women, the mothers of the future Italian generation.

"The three royal female colleges in Naples, entirely self-supporting, deserve special notice. One of these three Neapolitan colleges is especially meant for girls of the middle class. \* \* \* Professional schools have met with comparative success for girls of inferior social condition, and in some of these instruction in culinary mysteries has been given.

"Queen Margherita is greatly interested in girls' culture in Italy. If she could exercise more influence, her mind would be inclined to view woman's progress favorably. As a constitutional sovereign, with a desire not to exceed the authority given her, she abstains from indulging her liberal views. Highly cultivated herself, she can fully appreciate the divine enjoyment of a refined mind, and her personal encouragement to anyone willing to contribute to female progress in Italy is most generous. She receives with the greatest interest ladies actively engaged in any intellectual pursuit, whether it be art, which she loves and feels deeply, or philanthropy, which she practices largely, or teaching, or reforms in education.

"Last May, in Florence, to celebrate the sixth centenary of Dante's Beatrice, Count Angelo de Gubernatis, the distinguished Italian writer, conceived the brilliant idea of seizing the occasion to honor Italian women by the first exhibition of intellectual or manual work done by them during the thirty years since Italy was united. This exhibition proved a revelation of the capability of Italian women. Besides their work—manual, literary, and artistic—many of them have shown talent by musical entertainments, recitations, dramatic performances, tableaux vivants, and choruses. Several among the best Italian female writers have given public lectures on woman's position in Italy, both past and present. These lectures have just been published in a large volume edited by Civelli, in Florence, with the characteristic title of *La Donna Italiana descritta da Scrittrici Italiane in una serie di Conferenze tenute all'Esposizione Beatrice in Firenze*. The book proves that the woman question in Italy is advancing and that old prejudices are disappearing. Gold medals have been awarded to several of our cleverest Italian women—for music to Gilda Ruta, the composer, for her lecture on education; to Ida Baccini, the popular writer for children, and to the author of this article, for her literary productions.

"The Countess Irene della Rocco de Castiglione established at Turin an excellent magazine for girls, receiving assistance from some of the best writers of the day. The review has been taken in charge by one of the first publishing firms in Florence.

"The principal reforms needed in our modern educational system is that girls should be trained, not as a separate sex, but as an important part of the great human family. A girl's teachers are too apt to forget that the great object of education is to call forth the noblest faculties of her intelligence and to lead her, as far as possible, toward mental perfection. We can not secure a high tone of national life until it is admitted that girls should be trained rationally. In no country is woman's influence so strong, for, from the cradle to the grave, men are accustomed to be led and swayed by women's influence. Men of the less bigoted type would gladly see the dawn of an era of intelligent education for girls. Even now the Italian Government has given some attention to the matter, and it is proposed to make the royal palace Favorita, near Naples, a first-class college for girls. It would require little more than a rational arrangement of the course of study to make it a complete success.

"All these events show that a serious movement is in progress for the elevation of women in Italy. When this has taken place, Italian girlhood will be the happy vision of a poet. We want not alone the fresh, blooming colors of youth in the appearance of our daughters, not only the pure classical outlines of our Greco-Latin types. We hope to see in their clear, dark eyes the light of a noble soul; on the fair brow we look for the lines of thought, and in the sweet smile for the signs of a



gentle if passionate heart. And when education has done its work, elevating our lovely girls to the perfection they can and ought to attain, Italy will once more be the land of genius, of art, of poetry."

In an address by the Signora Zampini-Salazar before Sorosis, in New York City, in December, 1893, it was stated that the women of northern Italy were more progressive and more cultured than those of the southern provinces.

About women's organizations Signora Salazar gave numerous interesting facts. In Bologna the most active and progressive women were to be found, and they worked with a common aim. They accomplished much by their solidarity. Mazzini's influence was strongly felt there, and the efforts of an Englishwoman who had married his best friend did wonders in organizing and helping the cause of culture and progress. In Milan also the efforts of women of intellectual attainments in behalf of their sisters were earnest, but they lacked the peculiar strength of those of Bologna. There were excellent schools for girls in Milan, but no such strong centralizing influence as in Bologna.

In Turin the intellectual women were, according to Signora Salazar, engaged in trying to organize for the advancement of their sex. In Rome there were two clubs, both intensely conservative, but both enjoying royal patronage. One was a sort of philanthropic organization, which helped working women, established day nurseries for the children of working women, and the like, but did no purely intellectual work. The other was a club for culture, but Signora Salazar regretted to say that the most vital subjects ever introduced were themes from ancient history, and that the general effect was to deaden rather than awaken the intellects of the members. It was well attended, she said, because the Queen attended, but the interest the members seemed to take in one another's little bonnets and pretty toilets was the greatest one manifested.

In the matter of educational advantages for women, Italy was behind the times. There were public schools for elementary culture and normal schools for teachers, but a painful lack of girls' colleges. The opening of universities, lyceums, gymnasiums, and art schools to girls did not serve a very great purpose, as there existed a strong prejudice against coeducation.

In the professions women were handicapped by public opinion and masculine opposition. As doctors of medicine they had most liberty, especially since Queen Margherita had made a woman one of the honorary physicians of the court. But in the legal profession the utmost a woman could hope to attain was the privilege of helping her brother, husband, or father. In music many Italian women did great things, but it required natural genius and the endurance of great hardships. In business women were employed in telegraph and telephone offices. In schools they might be teachers, but not superintendents.

The end toward which she and all other earnest women were working was the recognition of Italian women as individuals and the granting to them the largest possible personal freedom.

That the time would come when all this would be accomplished Signora Salazar did not for a moment doubt. Italy as a nation was young, she said, and one could not expect more progress among its women than had been made. They possessed all the inherent traits of greatness, and only time and the educating influences of time were needed to bring them into the front ranks of women.

#### PORTUGAL.

The general consensus of opinion has been, in the Iberian peninsula, that an elementary education and certain accomplishments were about all that young girls needed to make them acceptable members of society, but now that the Queen of Portugal herself has studied for and taken a doctor's degree, that of M. D., it may be inferred that an impetus has already been given which will lead to the pursuing of higher studies by many of her subjects. In the latter part of 1891 Dona Amelia

Cardia obtained the diploma of doctor of medicine from the Medical College in Lisbon. Her graduation thesis on hysterical fever was applauded by the faculty. Women are admitted to the Royal Conservatory of Music in Lisbon; they learn to speak the languages in the private boarding schools to which most of them gravitate; they also study the elements of mathematics, geography, history, etc., and some of the girls pass creditable examinations for entrance to the lyceums and colleges for boys. If they choose to enter these secondary schools, the law of June 14, 1880, permits them the same privileges as to the male sex. Portugal possesses two normal schools for girls, in Lisbon and Oporto; in 1890 there were 58,045 girls receiving an elementary education, and 3,955 pursuing a higher course in lyceums and colleges.

## SPAIN.

Until a late date there have been no laws admitting women to university privileges in either Portugal or Spain, and yet women were not debarred from such study if they so desired. In Spain, by decree of May, 1892, women are admitted as "hearers," by order of the Queen Regent, in the name of King Alfonso. Should any women desire to matriculate, special arrangements may be made. There were 20 women studying in the universities during the year 1892; the most of them were in the courses in medicine and pharmacy.

In the Pedagogical Congress, held in Madrid in 1892, several noted women of Spain presented papers on the woman question; the trend of their discussion was to indicate the need of training in normal schools for women as one of the first elements of a much needed amelioration of existing conditions. These papers are presented in *La Escuela Moderna*, but there seem to be no immediate results of the discussions beyond the awakening of interest in the need of a higher standard of education for women.

Among those who have greatly aided the women in Spain, either through their own literary attainments or through efforts toward ameliorating existing conditions, are the Señoras Matilda del Real, Concepcion Arenal,<sup>1</sup> and Emilia Pardo Bazan.

The inspectress of municipal schools in Madrid, Doña Matilda del Real, in a paper before the pedagogical conferences held in Madrid in 1893, clearly portrayed the need of first learning to understand the nature of the child—here Froebel methods are cited—before proceeding to educate it. She earnestly advocated such training as would lead the child to look back upon its youth as a happy childhood. Doña Concepcion Arenal, in her writings, depicts the faults of woman's education—"if it can be so called"—in Spain. Oftentimes in the schools for girls the school mistress is unfitted for such employ, and "the major part of the time is employed in manual branches [feminine handiwork, doubtless], and it is an exception if the school mistress knows how to read intelligently, or to write without violating the rules of orthography, and to explain the most elementary parts of arithmetic." In higher grade schools the girls are taught geography, history, French, and music, but the instruction is not thorough. The lady advocated that there be similarity of education for men and women (*Que la educación debe ser la misma para el hombre que para la mujer*),<sup>2</sup> and that they work harmoniously together in educational institutions. Doña Emilia Pardo Bazan, one of the best-known women of letters in Spain, and a novelist whose writings are distinguished by great truth of local coloring, adds greatly to the estimate of woman's higher education in Spain.

The schools founded by the Association for the Education of Women (*Asociacion para la enseñanza de la mujer*), in Madrid, are benefiting hundreds of girls who attend the courses in pedagogies, modern languages, and painting, or who pursue the business course.

<sup>1</sup> Doña Concepcion Arenal, author and littérateur, was born January, 1820; died February, 1893.

<sup>2</sup> *Boletín de la Institucion libre de Enseñanza*, 31 de Octubre de 1892.

In the school of music and declamation, and in that of arts and trades, both in Madrid, many girls have followed the courses. In the former there were 918 in 1880-1881; in the latter, 130 in 1881.<sup>1</sup> Later statistics are not available.

#### RUSSIA.

The history of woman's education in Russia seems to date from the accession to the throne of Catherine the Second, and many educational and charitable institutions were established during her reign, 1762-1796. In 1764 a royal order established an "Educational Home for Girls of Noble Birth," and within a year young girls of the middle classes were admitted to a division of that home. The course of study extended over twelve years, and admission was from the fifth or sixth year. Pupils of noble birth received instruction in the ordinary branches, in the elements of rural economy, in architecture and heraldry, in etiquette, and the observance of the laws of polite society. The girls of the middle classes had their attention turned to household economy, the proper management of a home, knitting, weaving, etc. The Empress Marie Feodorovna (1796-1828), in turn, assumed the immediate direction of this educational home, and gave it an endowment of 1,300,060 rubles (\$510,923). A number of educational and benevolent institutions for girls and women were established during her reign. Among others, the Kharkof Institute, founded in 1817, which authorized the admission of girls of noble birth, of merchants' daughters, of paying and nonpaying pupils. These were the beginnings of the charitable and educational institutions, homes, hospitals, schools for the deaf and dumb, etc., which are grouped and known as the Marie Institutions.<sup>2</sup>

During the reigns of the Emperors Nicholas I and Alexander II (1828-1881) the number of institutions for the education of girls so increased that a "Supreme Council of the Educational Establishments for Young Girls" was established (in 1845), which in 1873 was annexed to the tutelar councils. In 1858 the first public day school, admitting girls of all conditions and religions, was established. (In 1880 there were 459 educational establishments—including orphan homes, foundling hospitals, etc.—known as the Marie Institutions.) In 1891 there were 30 public schools for girls which, together with gymnasia and pedagogic classes, were attended by 10,664 pupils. The instruction is similar to that in the 32 institutes for girls, where 7,680 girls were giving their attention to the Russian, French, and German languages, geography, history, mathematics, zoology, pedagogy, calligraphy, drawing, music, singing, gymnastics, and dancing. Several of these institutes have "special pedagogic classes in which particular attention is paid to the study of foreign languages and to proof lessons for training the pupils in the art of teaching." The final examinations entitle (when passed) to a diploma qualifying for teacher or as governess.<sup>3</sup>

In 1891-92 there were 455,167 girls reported as receiving an elementary education in Russia, 89,473 in schools of a secondary grade (these include girls' gymnasia and progymnasia), 3,832 in professional schools, and 400 in university colleges for women (in 1890).<sup>4</sup>

In 1869 the minister of public instruction gave permission for the organization of a series of public lectures, for women, in history, philosophy, and science, at St. Petersburg and Moscow. In 1872 higher courses were opened in Moscow, special attention being given to the study of universal literature and Russian history. In 1876 an imperial ukase authorized the foundation of higher courses, on various subjects, for women at different universities in Russia. There were no general regulations, and the organization of such courses was considered temporary. In 1884 a

<sup>1</sup> Doña Concepcion Arenal in *The Woman Question in Europe*, by Theo. Stanton.

<sup>2</sup> Short historical sketch of the Marie Educational and Charitable Institutions, St. Petersburg, 1893.

<sup>3</sup> These statements are from a short historical sketch of the Marie Educational and Charitable Institutions, St. Petersburg, 1893. A more complete presentation is found in the Report of the Commissioner of Education for 1893-94, pp. 401-409.

<sup>4</sup> Statesman's Year Book, 1895, p. 866.



committee was created to formulate the best plan of organization for the superior education of girls in the Empire, and in 1889 regular four-year courses for higher study were created. There are two divisions, the historico-philological and the mathematical.

(1) In the historico-philological section are taught: Religion, psychology, logic, history of philosophy, Russian language, old Slavonic, history of Russian literature, ancient and modern theory of literary forms, Slavonic idioms and literature, universal literature (this includes Italian, French, German, and English literatures in their connection with the development of Russian literature), Russian history, history of the peoples of Slavonic race, ancient history, history of modern times, history of arts, Latin language and literature.

(2) In the mathematical section: Religion, general course of mathematics, analytical geometry, algebraical analysis, differential and integral calculus, astronomy, physics, organic and inorganic chemistry, physical geography, and analytical mechanics.

In the year 1891 there were 385 students in the four courses, of whom 298 were in the historico-philological and 87 in the mathematical section. The tendency of study is toward history and literature, although the philosophical and mathematical students gave evidence of thorough study in such theses as "On the constitution of our self-consciousness, according to Taine and Strahoff," and "Euler's formulæ of quadratics," etc.<sup>1</sup>

Woman in medicine is discussed under "Woman in the professions;" Russian women in Swiss universities under Switzerland.

#### FINLAND.

The educational authorities of Finland permit women similar privileges to men in the matter of university study, subject to the restriction that any examination passed by a woman can not entitle her to other appointments than such as are in accordance with existing laws and regulations. Nor is any woman entitled to receive such free scholarships as are distinctly intended for men.

It is stated<sup>2</sup> that as early as 1870 a woman student passed an examination for admission to the university in Helsingfors, another followed in 1873, and then there is an interregnum until 1885. Seventeen women students were in attendance in 1889, increased to 44 in 1891 and to 56 in 1893. In 1894 there are 5 in the law course, 5 in medicine, 33 in the sciences, 30 in philology and history; total, 73.<sup>3</sup>

In the year 1893 there were 212 women obtaining a business education in commercial schools, 175 in the agricultural and dairy schools, 4,712 in secondary grade schools, and 263 preparing, in normal schools, for the teacher's profession.<sup>4</sup>

In the earlier years women desiring to enter the university were obliged to fit themselves for such purpose in private schools. Since 1883 there are coeducational schools opened to them.

#### EASTERN EUROPE.

The chief features of the organization or fundamental laws of Turkey are based upon the Koran. According to it "woman's education must be equal to man's" (chapter 22, verses 33 to 35). From the beginning of the reign of Mohammed there is mention of well-educated women,<sup>5</sup> but it is within the last twenty years that the subject of woman's progress has become of interest.

<sup>1</sup> Higher Education of Women in Russia, by Prince Serge Volkonsky. [See Report of the Commissioner of Education for 1892-93, pp. 687-690.]

<sup>2</sup> *Revue Internationale de l'Enseignement*, 15 février, 1896, pp. 180-182.

<sup>3</sup> *Statistisk Årsbok för Finland*, 1895.

<sup>4</sup> *Statesman's Year-Book*, 1895, and *Statistisk Årsbok för Finland*, 1894.

<sup>5</sup> The poems of Aysha, wife of Mohammed, are known in ancient Arabic literature; *Ḥafiseh*, teacher of Imans-Shafieh, was called "the doctor," on account of different literary works; *Husnieh* gained prizes in philosophy of law and ethics; the writings of Leila and Fitmet serve as models of Oriental literature; *Djemileh*, poetess, artist, and musician, was called "the gem of the fair sex;" *Aliéh Hanum*



The Turkish schools for girls at Constantinople in 1893 numbered 97, ranging from primary to normal, with 6,545 day scholars, 320 boarding pupils, and 178 teachers. The studies are Turkish language, history and geography of the Ottoman Empire, arithmetic, drawing and piano, needlework, and embroidery. The normal school has been established twenty-two years, and graduation therefrom entitles to a diploma permitting one to teach in Turkish houses or in girls' schools of the provinces.

The Greek schools for girls in Constantinople graduate pupils who have become directresses of other Greek schools in Turkey. The studies are the foreign languages, geography, mathematics, history, art, vocal and instrumental music, drawing, and painting. The Greek schools number 55, with 218 classes, 5,233 students, and 199 teachers.

The Armenian schools for girls in Constantinople are supported by three committees—the Armenian Catholic, the Armenian Gregorian, and the Armenian Protestant. They include elementary and secondary grades, with 67 classes, 1,880 pupils, and 250 teachers.

The schools of the Israelite Alliance educate many students free of charge. In 1893 they reported 201 pay and 967 free students and 36 teachers. The programme included French, Hebrew, German (that is, the elements taught to students of those nationalities), history and geography, arithmetic, natural history, physics, chemistry, drawing, singing, embroidery, and sewing; also laundry work, i. e., ironing. The main aim of these schools for girls is to educate the poorer classes.

The centers of education are at Constantinople, Smyrna, Salonica, Seres, Adrianople, Philippopolis, and Yañina. The college curriculum aims to be similar to that of European nations; the French tongue is compulsory in the schools; the works of foreign authors are studied under the direction of French and German teachers; in the higher elementary schools the studies include zoology, mineralogy, botany, cosmography, the elements of anthropology, and physics; the body, too, is well trained by gymnastic exercises. Late movements indicate the establishment of high schools for girls in the largest cities of the Ottoman Empire, as an outcome of a movement in Greece proper, where the closing of the higher gymnasia for girls was met by an appeal of all the students to the ministry of education, where their arguments brought about a reopening of the same.

In Bulgaria there were 42,206 girls receiving an elementary education in 1890 out of 261,968 girls of school age. Four gymnasiums for girls are also reported in the Statesman's Year Book for 1896, from which these facts are gleaned:

"In point of education the Bulgarian women of Macedonia and Thrace are now, in the towns, much on a par with their Greek neighbors. Formerly, in districts where Bulgarian national schools did not exist, the girls attended the schools belonging to Greek communities, but since the principality acquired its autonomy, the anti-Hellenic movement has succeeded, to a great extent, in substituting Bulgarian for Greek education in the Turkish provinces. Teachers are supplied from the training colleges of Bulgaria proper, where the schools are organized on the newest and most approved European systems. There is at Philippopolis a girls' lyceum, established eight years ago, at which 150 girls receive a high school education, many of whom become mistresses of Bulgarian schools in the Turkish provinces."<sup>1</sup>

In Servia all the schools under the ministry of education are free, even including the university. In the elementary schools 11,204 girls were receiving instruction in 1892-93; in the lower gymnasia 321 girls; in high schools for girls or normal schools, 612 girls.

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(among contemporary women) has translated treatises and novels, and she wrote *The Mussulman Women*; *Tafur Hanum* is familiar with French, Turkish, Greek, Arabic, and Persian languages; *Emineh Semieh Hanum* is the author of an arithmetic. [See address on education and literature of the women of Turkey, delivered before the World's Congress Auxiliary, July 22, 1893, by Señorita Esmeralda Cervantes.] The women of Turkey are fully described, especially as regards habits and customs, in *The Women of Turkey and Their Folk-Lore*, by Lucy M. I. Garnett.

<sup>1</sup> *The Women of Turkey and their Folk-Lore*, by Lucy M. I. Garnett, London, 1890.

In Roumania, in 1892, there were 27 women who had entered the university at Bucharest and 26 at Jassy. The Roumanian minister of public instruction appointed a woman (in 1894) to the newly created position of professor of the German language in the university at Bucharest.

INDIA.<sup>1</sup>

From India comes the information that many earnest reformers are endeavoring to overcome the obstacles to the elevation of women in that country. In 1883 a commission was appointed to investigate the whole system of education in India. The education of women and the instruction of Mohammedians received special attention. In British India alone it is estimated that only 1.8 per cent of girls of school age attend school. Statistics of schools in 1893 showed that there were 3 women's colleges, with 101 students; 419 secondary schools, with 35,747 pupils; 5,399 elementary schools, with 284,250 girls attending; 1,496 private schools for girls, with 42,371 students. The census for 1891 gives 197,662 girls under instruction, 543,495 not under instruction, but able to read and write; 127,726,768 not under instruction and unable to read and write. No information was obtained in regard to 12,028,210 women. Generally speaking, the school education of Indian girls comes to an end between the ages of 10 and 12, at the age when American and English girls are just at the threshold of learning.

The most important movement in recent years is that aiming to give medical relief to the women of India. Lady Dufferin, the wife of Lord Dufferin, former viceroy of India, manifested great interest in this movement, which is referred to under the heading of medical instruction.

Among other women who take a foremost position in India is Dr. Jagannadham, a native of India, who first studied three years in Madras, then two years at the Edinburgh School of Medicine for Women. Having passed her examinations successfully, she obtained the diploma of the Scottish colleges. At Edinburgh she was demonstrator of anatomy, then for a year house physician in the Edinburgh Hospital for Women and Children. At present she is connected with the Kama Hospital in Bombay, but is to fill a position in the association established by Lady Dufferin.

Pundita Jumna Bai, a Brahmin lady, has taken an active part in establishing a female association at Jamnugger. This lady is a Sanscrit scholar, and is well versed in the Hindu Shastras. She has given readings from the Shastras before the Zenana ladies in Bombay.

The Punjab Association for the Promotion of Female Education supports and manages the Victoria School, with its ten branches in the city of Lahore. This school aids in the preparation of female teachers for schools throughout the province. Industrial, normal, and higher courses have already been, or are about to be, introduced in the Victoria School.

There are universities in Calcutta, Madras, Bombay, Allahabad, and the Punjab. These are merely examining bodies, but they have numerous affiliated colleges. The number of women students attending these higher courses of training is unknown to date, but a few years ago 13 European women and 3 native girls were among the successful students for matriculation at Bombay University, while at Madras 5 Tinnevely native Christian girls were successful candidates at the matriculation examinations. This was the first time that native girls from Tinnevely had passed the examination.

<sup>1</sup> The Statesman's Year-Book, 1895 and 1896, and other sources of information.

## JAPAN.

The latest statistics pertaining to girls' education in Japan are taken from the Report of the Minister of State for Education for 1892. Out of a total school population of 7,356,724 there were as follows:

|  | Women<br>teachers. | Girl<br>students. |
|--|--------------------|-------------------|
| Kindergarten schools.....  |                    | 5,480             |
| Elementary schools.....  | 3,401              | 967,972           |
| Normal schools.....  | 62                 | 973               |
| Higher girls' schools.....   | 180                | 2,803             |
| Special schools.....   | 9                  | 123               |
| Miscellaneous schools (includes language, drawing, music, and industrial schools)..... | 613                | 15,520            |

*Girls of school age.*

|  |           |
|--|-----------|
| Receiving prescribed course of instruction at close of year..... | 962,056   |
| Leaving school during the year—                                  |           |
| Having completed the prescribed course.....                      | 62,697    |
| Without completing the prescribed course.....                    | 98,473    |
| Not receiving instruction—                                       |           |
| On account of poverty.....                                       | 1,086,973 |
| On account of sickness.....                                      | 160,893   |
| For other (unnamed) causes.....                                  | 668,977   |

Total number of girls of school age, 3,453,065; of boys, 3,903,659; per cent of school population receiving instruction, 55.14.

Although women are still in a somewhat dependent condition in Japan, the study of other nations, and the influx of an educated foreign population—with highly educated women in their families, the return of Japanese students from other countries, all tend to indicate to the enlightened Japanese statesmen that broader fields of education are now open to women.

In the school system now found throughout the Empire, girls and boys are equally provided for. Every morning the streets of the cities and villages are alive with boys and girls clattering along, with books and lunch boxes in their hands, to the kindergarten, primary, higher, and normal schools. Every rank in life, every grade in learning, finds its proper place in the new school system, and the girls eagerly grasp their opportunity and show themselves apt and willing students of the new learning offered to them. Upon the young girls the influence of the school is to make them more independent, self-reliant, and stronger women. The women of to-day in Japan who are taking the lead in the elevation of women are those belonging to the Samurai class, i. e., those who belong to military circles.<sup>1</sup> According to the statement of Miss Bacon they are endeavoring to "establish, upon a broader and sure foundation, the position of women in their own country, for the Samurai women to-day are eagerly working into the position of teachers, interpreters, trained nurses, and whatever other places may be honorably occupied by woman."

There are and have been several Japanese women studying in this country, and statements indicate that Japanese girl students are by no means rarities here. There is one at Wellesley and a second, Miss Fuji Tsukamoto, was at Wilson College for Women at Chambersburg, where she was considered one of the brightest students. She graduated in June, 1894, and on commencement day led in a debate on the interesting question, "Have the more recent influences of the Occident on the Orient been a benefit to the latter?" There was still another Japanese girl, Miss Tsuno Hirata San, at Western Maryland College, Westminster, Md., where she was graduated in 1890. Returning to Japan, she married and is now working in the missions at Nagoya. Vassar College also claims a Japanese graduate. Japanese boy students are common enough, and the girls also appear to appreciate American educational institutions.

<sup>1</sup> Japanese Girls and Women, by Alice Mabel Bacon, 1891.



Miss Ume Tsuda, a special student at Bryn Mawr, is endeavoring to raise money to found a scholarship for Japanese women in America so that they may be prepared as teachers to return to their own country. The reserve of Japanese women and the class distinctions make it easier for the Japanese to teach women than for foreigners.

#### THE SPANISH-AMERICAN COUNTRIES.

There is less available information in regard to the higher education of women in these countries than in Europe, but as social factors the Spanish women are preeminent.

In Mexico a decree was promulgated in 1890 for a normal school for women teachers in the City of Mexico, free instruction in a four years' course to be given to the students. Then a special fund was provided for 80 meritorious students, who were, however, to teach for three years after finishing the course. The Government has also provided for the education of women in a literary and scientific institute which has a high grade of study (including trigonometry, calculus, philosophy, chronology, literature, physics, chemistry, natural history, and bookkeeping). A lyceum for women was also founded in 1878 which takes up subjects that are considered essential to the proper training of women. This is also supported by Government funds. The preparatory school of San Ildefonso, which has trained many distinguished men, has also received girls who desired a similar grade of educational advantages.

The schools of arts and trades for women are also crowded with students, from the young girl to the woman of mature years, all of whom receive free instruction in such branches as printing, bookbinding, sewing, fancy work, knitting, trimmings, fringes, making cords and tassels, etc. Piano and vocal music are also taught, and the pupils have an elementary course of study.

In 1892, according to the *Boletín Semestral de la Dirección General de Estadística*, there were 899 Government and 927 municipal schools for girls. Enrolled in the girls schools were 138,037 pupils; in average attendance, 107,725. These schools appear to be of elementary grade, but it is not specifically stated.

In Costa Rica, according to the *Memoria de Instrucción Pública*, año 1892, there were 65 women preparing to become teachers, and 11 had already received the diploma requisite for such position. In the *Colegio superior de Señoritas* 75 women were following a secondary course of instruction; professional instruction included 16 women students. Doubtless this does not represent the number of women interested in higher studies, but the report does not enlarge upon this phase of education. According to the "*Anuario de la Inspección general de Enseñanza*, año 1892-93" there were 7,421 girls enrolled in elementary grades, 5,281 in regular attendance, 1,471 graduates. "Elementary instruction of both sexes is obligatory, free, and provided for by the government," so it is stated in "*The Republic of Costa Rica*" by J. B. Calvo, 1893.

In Guatemala, as is indicated by the law<sup>1</sup> for public instruction, the same regulations apply to both boys and girls in schools of different grades. It is stated, however, that sewing and domestic economy enter into the course for girls, and they are not obliged to matriculate from the secondary grades.<sup>2</sup> Private schools and colleges for girls are reported, but the number is not definitely stated. There are 434 elementary schools for girls.

In Honduras there are three colleges, or secondary grade institutions, for women.

In Nicaragua of late years there has been manifest interest in regard to the education of girls. Among other institutions of a secondary grade in the city of Granada there is a college for young ladies, where several hundred pupils are enrolled. The curriculum is quite extensive, but special attention is paid to musical studies.

<sup>1</sup> Ley orgánica y reglamentaria de instrucción pública, 1893.

<sup>2</sup> Those who matriculate receive the title of "Graduada en Ciencias y Letras." See *Ley orgánica y reglamentaria de instrucción pública*, 1893, p. 25.



Several of the graduates of this college are said to be following higher educational courses in the United States.

In Argentina, in 1894, there were 83,648 girls in public schools of elementary grades and 3,767 women teachers; in private schools, 30,473 girls and 1,161 teachers; in primary departments of normal schools, 6,097 girls and 260 women teachers.<sup>1</sup> The three higher grade normals—one for men and one for women, and one mixed—train professors and teachers capable of directing or superintending in the public schools. The programme of study is similar for men and women. Until within a few years "the women of Argentina were content with such instruction as made them fascinating members of society,"<sup>2</sup> but now they desire still higher study. According to Dr. Zubiaur, "a new era in the social evolution of the Argentinian people has dawned, and a stimulating effect upon the other Latin-American countries has been produced by the overcoming of ancient prejudices in regard to woman's status." The Señorita Cecilia Grierson has lately obtained her diploma as M. D., after six years of study at the faculty of medicine in Buenos Ayres. The señorita was the first young lady of Argentina to win such a degree. Prior to entering upon her medical studies she obtained the diploma of instructress from the normal school of the capital.<sup>3</sup>

In Brazil the statistics appertaining to the education of girls are quite meager. Ten years ago there were reported to be 1,315 schools for girls throughout Brazil. In 1888-89 it was stated that there were 500 coeducational schools.<sup>4</sup> In the Municipio Neutro, or federal district, which includes Rio de Janeiro and its environs, there were, in 1892, 120 public elementary schools of the first grade (59 for boys and 61 for girls), with an enrollment of 4,444 boys and 4,056 girls; classed as subsidized schools were 32, with 667 boys and 879 girls; the normal in Rio de Janeiro had 248 women pupils and 32 men. The Instituto Benjamin Constant had 27 men and 21 women pursuing its course (in 1892), which included science and letters, universal history, and music. This is an institute for the blind. Private institutions (collegios) numbered, in the Municipio Neutro, 119, with 6,073 boys and 3,628 girls.<sup>4</sup> One is led to infer that the sexes are separated, and that these are schools for boys and schools for girls, but the matter is not specifically stated. It is known, however, that according to early laws coeducation was not allowed, but about 1885 Dom Pedro II established a number of schools where boys and girls recited together, but were kept apart outside of the recitation rooms.<sup>5</sup> A writer on "Brazil: Its Condition and Prospects," describes a girls' school in which there was a seat of honor "where a pupil sits for half an hour who has her lessons the most perfect in her class." The day of his visit three pupils stood up because they had been the recipients of this favor during that forenoon.<sup>5</sup>

In Chile women are well educated in so far as general accomplishments are concerned. They have a special aptitude for modern languages, and many speak with fluency French, German, and English. In the Instituto Nacional, the oldest college in Chile, which received its charter from the King of Spain over one hundred years ago, there are many earnest, thoughtful students. Among them there are said to be two or more women who are studying law. In the Colegio Norte Americano, established under the auspices of the M. E. Church of America, there are 250 girls studying higher branches, as well as music, painting, drawing, and the languages.

In Uruguay there were 591 women engaged in the profession of teaching in public schools and 549 in private schools. In the National Normal School for Girls from

<sup>1</sup> Anuario de la Dirección General de la Estadística, 1894, pp. 506-520.

<sup>2</sup> Quelques mots sur l'instruction publique et privée dans la République Argentine, par le docteur J. B. Zubiaur, Paris, 1889.

<sup>3</sup> L'instruction publique en Brésil, par Perez d'Almeida, Rio de Janeiro, 1889.

<sup>4</sup> Relatório apresentado ao Vice-Presidente da Republica dos Estados Unidos do Brasil pelo Dr. Fernando Lobo, Ministro de Estado, da Justiça e Negocios Interiores. Abril de 1893.

<sup>5</sup> Brazil: Its Condition and Prospects, by C. C. Andrews, New York, 1891.

1877 to 1891 there were 114 girls who received "the title of professor for the first degree," and 29 "for the second degree." In the public schools of various grades 19,135 girls were under instruction. Women are also engaged in charitable and philanthropic work, and among such organizations is the *Ateneo de la Mujer*.

In Venezuela, according to Aristides Rojas, in his *Origenes de la Instrucción Pública en Venezuela*, a college for girls was founded as early as 1768 and placed in charge of the civil authorities of Caracas. It was called "*Colegio de Niñas Educandas*," and aimed more especially to teach orphans and poor girls some handiwork that would be useful to them. About the same date a college and convent school for young ladies of higher degree was founded and well endowed. Later developments in regard to woman's education are unchronicled, but it was stated in 1893 that there "were 14 national colleges for women and a normal school for girls." Pupils are not specified.

## WOMEN IN THE PROFESSIONS.

### WOMEN IN MEDICINE.

The endeavor to present a complete account of what woman has accomplished in the medical profession alone would be futile; the facts presented will speak for themselves.

According to Dr. Mary Putnam Jacobi,<sup>1</sup> "the history of the movement for introducing women into the full practice of the medical profession is one of the most interesting of modern times. This movement has already achieved much and far more than is often supposed. Yet the interest lies even less in what has been so far achieved than in the opposition which has been encountered; in the nature of this opposition, in the pretexts on which it has been sustained, in the reasonings, more or less disingenuous, by which it has claimed its justification. The history, therefore, is a record not more of fact than of opinion. And the opinion expressed has often been so grave and solid in appearance, yet proved so frivolous and empty in view of the subsequent event, that their history is not unworthy careful consideration among that of other solemn follies of mankind."

The reasons that women naturally manifest more interest in the medical profession than in any other profession are, according to Dr. Jacobi, "the special capacities of women as a class for dealing with sick persons are so great that in virtue of them alone hundreds have succeeded in medical practice, though most insufficiently endowed with intellectual or educational qualifications. When these are added, when the tact, acuteness, and sympathetic insight natural to women become properly infused with the strength more often found among men, success may be said to be assured."

If one remembers that even in the early fifties advanced courses of study for women were hardly known in this country, and that even for men the standard of attainments, from the medical side, was low, then one may look with interest upon the following table, which shows that in 1892-93, notwithstanding all the obstacles that had to be overcome, 1,302 women were enrolled in the medical schools of the United States<sup>2</sup>:

|                      | Schools. | Students. |
|----------------------|----------|-----------|
| Regular .....        | 36       | 827       |
| Eclectic .....       | 9        | 78        |
| Homeopathic .....    | 13       | 330       |
| Physio-medical ..... | 2        | 10        |
| Graduate .....       | 4        | 57        |

<sup>1</sup> From *Woman's Work in America*, by Annie Nathan Meyer.

<sup>2</sup> From Report of the Commissioner of Education for 1892-93, p. 1627.

Add to this the fact that there are 4,555 women physicians and surgeons in the United States, and that 3,000 women have been licensed to practice within the last ten years, and that there are 7 medical schools for women alone, then one may well agree with Dr. Jacobi that "the change from the forlorn conditions of the early days has been most rapid, and those who survived the early struggle, and whose energies were not so absorbed by its external difficulties that not enough were left for the intrinsic difficulties of medicine, have been really invigorated by the contest."

The statistics cited indicate the various steps taken in the medical profession by women. The question of further needs arises. "Future advance for the education of women in medicine must be in the line of their admission to the schools where the highest standard of education is maintained, and to such affiliation of their own schools with universities as may bring them under the influence of university discipline. There is no manner of doubt that, with a few unimportant restrictions, coeducation in medicine is essential to the real and permanent success of women in medicine."

And, furthermore, it may be said that "because women require the intellectual companionship of men, to be able to recognize the highest intellectual standards, or to attain them in some cases, and to submit to their influence in others, it does not follow that they have no special contributions of their own to offer to the work of medicine."

High standards should be the aim of women as well as men, and it may be said that "Medical education in this country is now making one of the longest strides forward that has occurred in its history. This step is the lengthening of the course to three and four years of eight or nine months, instead of the old course of two years of four or five months."<sup>1</sup> Another point has also to be taken into consideration, that is, regulations governing medical education vary in the different States. In New York<sup>2</sup> a woman must pass the State regent's examination in spelling, arithmetic, elementary English, English composition, geography, United States history, and physics before she can matriculate at college. After the M. D. degree has been obtained another State examination, covering the studies of the course, must be passed before she can practice. This applies to men and women alike. For examinations in other States see article on Medical Education.<sup>3</sup>

The first efforts made in England by women who desired to study medicine are due to Miss Garrett (now Mrs. Garrett Anderson, M. D.), who in 1860 began the study of medicine with a view to registration and practice under the medical act of 1858. Dr. Elizabeth Blackwell had obtained a degree of medicine in 1849 in America, and was already a practicing physician in England, but Miss Garrett tried for some time "to obtain admission as a student at Apothecaries' Hall, London, where she attended some of the classes with male students; in lieu of attendance upon others which were forbidden, she paid comparatively heavy fees for private tuition by recognized teachers. Many difficulties were thrown in the way of her receiving hospital instruction; these her energy and ability surmounted, and in 1865 she succeeded in obtaining registration as a licentiate of Apothecaries' Hall. Thus she became a legal and 'duly qualified' medical practitioner. Her title of M. D., however, she acquired from no English examining body, but from the University of Paris, where she passed the necessary examination with great distinction."<sup>3</sup>

This movement initiated by Miss Garrett was soon continued by Miss Sophia Jex Blake, who in 1869 applied to the University of Edinburgh for admission to medical study with the purpose of taking a degree. The opposition then encountered was set aside after five months' deliberation by the university court, when other women joined with her in desiring similar opportunities. Five women took the same courses

<sup>1</sup> Report of the Commissioner of Education for 1892-93, pp. 1617-1632.

<sup>2</sup> Article in New York World of April 7, 1895.

<sup>3</sup> Woman's Work and Worth, by W. H. Davenport Adams, London, 1880.



as the male students, matriculated and passed the same examinations. Again there was determined opposition on the part of the university authorities. As the number of women desiring medical study had increased to 10 in 1874, their friends introduced a bill into the House of Commons "to remove doubts as to the powers of the universities of Scotland to admit women as students, and to grant degrees to women."<sup>1</sup> This bill was thrown out in 1875.

"Meanwhile a strenuous and, as it proved, a partially successful effort had been made to further the movement in another direction. In the autumn of 1874 was established the London School of Medicine for Women, with a strong staff of eminent teachers, and the number of students who enrolled themselves on its book conclusively proved that such a school was wanted and would be vigorously supported. But another difficulty arose. The medical examining body considered very properly that students coming before them should have received practical clinical instruction in a hospital and by the bedside. To provide such a hospital *de novo* and at once was not possible. The London School of Medicine accordingly applied to existing hospitals to admit students, but in every case met with a refusal. What was to be done? Happily public opinion had by this time begun to tell upon Parliament and the Government, and in 1876 Government agreed to favor a bill introduced for the purpose of enabling the British examining bodies to extend their examinations to women as well as men. Before the end of the session the bill received royal assent and became a law. A few months later the Irish College of Physicians availed themselves of its provisions, and admitted to their examinations Dr. Elizabeth Walker Dunbar, Dr. Frances Hoggan, Dr. Louise Atkins (M. D.'s of Zurich), Dr. Sophia Jex Blake, and Dr. Edith Pechey (M. D.'s of Berne), who were thus entitled to places on the medical register. Not long afterwards the Royal Free Hospital generously opened its doors to the students of the London School of Medicine for Women, and this was followed by the resolution of the senate of the London University to admit women to their medical examinations and degrees. Thus the battle was won in England."

In 1894 the first degrees in medicine were conferred in Scotland on two ladies. The following is an interesting description of this event:

"At the graduation ceremony in Glasgow University on July 26, for the first time in the history of Scottish universities the degrees of bachelor of medicine and master in surgery, M. B., C. M., were conferred on two ladies. Principal Caird, vice-chancellor of the university, officiated, and there was a large representation of the university teaching staff. The Bute Hall was filled by a numerous audience of students of both sexes and of the general public. As Miss Marion Gilchrist, who ranked third on the list of the graduates who took the degrees 'with high commendation,' passed up to the dais to be 'capped' by the principal, she received a perfect ovation of enthusiastic applause, which was warmly joined in by the professors: and Miss Lillian Cumming was quite as heartily welcomed.

"Both the ladies who have the honor of being the first graduates in medicine of any Scottish university have studied for the last seven years in Queen Margaret College, now the woman's department of the University of Glasgow, viz, three years in arts and four years in medicine. Miss Marion Gilchrist was born at Bothwell Park, 9 miles from Glasgow, and received her education previously to joining the college in schools at Bothwell and Hamilton and by means of private study. In her college career, after distinguishing herself in her art classes, she took the general certificate of Queen Margaret College, the university degree in arts not being open to women at the time.

"In the course of her medical studies she stood first in her class in zoology, practical chemistry, anatomy, histology, physiology, surgery, medicine, pathology, and midwifery. She took her clinical work in the Royal Infirmary and in the Royal

<sup>1</sup> Woman's Work and Worth, by W. H. Davenport Adams.



Hospital for Sick Children, in both of which abundant facilities are given to women students. She has now been appointed assistant to Dr. Joseph McGregor Robertson, a physician in practice in the west end of Glasgow.

"Miss Alice Lillian Louisa Cumming was born at Houston, Renfrewshire, and educated at schools in Glasgow. Her seven years in college have been characterized by steady, persevering, and excellent work. She will begin her medical practice by acting as assistant to her father, Dr. James S. Cumming, Blythwood Square, Glasgow.

"Founded in 1882 (by the Glasgow Association for the Higher Education of Women, which was formed in 1877 with the object of bringing university instruction or its equivalent within the reach of women), Queen Margaret College, in 1890, added to its faculty of arts a school of medicine for women. This was organized entirely on university lines, and with the view of preparing for university degrees; and when, in 1892, in consequence of the ordinance of the universities' commissioners authorizing the Scottish universities to admit women to instruction and graduation, Queen Margaret College became the women's department of the University of Glasgow, its classes in medicine, taken previously to its incorporation with the university, were recognized as preparing for the degree.

"Hitherto it has been chiefly to the younger universities and colleges in Britain that women have had to look for admission to instruction and graduation in arts and medicine, and although instruction and graduation in arts has been granted by all the Scottish universities for each two years, the fact that one of the oldest universities in Scotland (the University of Glasgow was founded in 1450) has now led the way in conferring its medical degrees on women taught within its own walls, marks a new accession to the facilities afforded for the education of women which will be welcomed by all who are interested in their welfare."

"The first French woman to take a medical degree was Mlle. Verneuil, who is still practicing at Paris (in 1883). She graduated from the Paris Medical School in 1870. Up to 1881 six more French women had followed her example, five taking their degree at the capital, and one at Montpellier. Since that time several new names have been added to the list, the last being Mlle. Victorine Benoit, who was graduated at Paris in August, 1883, with the highest approval of the board of examiners, composed of such doctors as Potain, Strauss, Rendu, and Monod."<sup>1</sup>

The Paris Medical School was ever open to women, and this is due in part to Laboulaye, who, when asked, reported to the minister of public instruction: "The rules of the school say nothing on the subject. It would, therefore, seem the best and the simplest course to require of women who desire to pursue medicine the same preparatory studies and the same tests for graduation which are demanded of the male students, and thus allow both sexes to enjoy the same advantages offered by the school."

The general attitude of the public and of male physicians in France is described by a lady student, who says:

"The medical faculty<sup>2</sup> of the University of Paris opened its doors to women in 1868, but at first only a very few availed themselves of the privileges thus offered. In 1878 the number in attendance was 32; during the next ten years (1878-88) it increased to 114, and is at present 183, of whom the great majority (167) are Russians. The remainder are Poles, Roumanians, Servians, Greeks, and Scotch, and only 1 German. \* \* \* Many of them, chiefly Russians, have been through the gymnasium; others have acquired a more or less thorough knowledge of literature, history, the natural sciences, and philology in such secondary schools as were accessible to them. As foreigners, they must all be examined in Latin and Greek before admission, and be able to translate passages from the easier classical writers, Cæsar and Xenophon, at sight, and to analyze them grammatically. The courses of study

<sup>1</sup> From *The Woman Question in Europe*, by Theodore Stanton (pp. 278-279), New York, 1884.

<sup>2</sup> See *The Nation*, February 14, 1895.

are pursued conjointly with the young men, and this association, so far from producing a demoralizing effect, tends to elevate and refine both sexes. \* \* \* The professors and directors of the hospitals praise the conscientiousness and diligence of the women, and acknowledge them to be, both in general intelligence and in special knowledge, fully equal to the men. The latter also admit the truth of this statement, and assert that they ought to be even superior in these respects, since they are not compelled to waste their time in cafés and cabarets."

Under the heading of liberty of the professions, M. Ostrogorski<sup>1</sup> states that in several countries women are permitted to be physicians or pharmacists. He cites England, Holland, Belgium, Sweden, and Russia as having by degrees permitted what seemed contrary to customs and laws. The Belgian Parliament has decided that "women may be admitted to the full practice of medicine and pharmacy." Between 1881 and 1891 17 women passed the pharmaceutical examination, and 14 received different degrees in the medical faculties of Belgium. Further information on this subject is found in a preceding section of this chapter.

Holland has 4 women doctors; the first, Mlle. Aletta Jacobs, having a diploma of Groningen University, established herself in Amsterdam on September 15, 1879, after having completed a very brilliant course of studies. She was authorized by Minister Thorbecke to practice medicine. Another medical woman, Mme. Du Saar, or Dusart, has obtained a great reputation as an oculist. Mme. Tuschenbrack is a talented gynecologist, and was for many years assistant to the first gynecologist of Amsterdam, M. Mendes, from Lyons. The fourth woman doctor is Mme. Johanna C. Spruyt. A decree of November, 1870,<sup>2</sup> admitted women to the practice of pharmacy in the Netherlands, and a large number of girls have studied for this purpose. There are 727 aids<sup>3</sup> of pharmacy, of whom 414 are men and 313 women. But although the Dutch universities have conferred 15 apothecary diplomas on young girls, there is not one woman who conducts independently a private pharmacy. The first pharmacy conducted by a woman will soon be opened in Utrecht, by Mme. Th. Olivier.

Seven women possessing an apothecary's diploma practice their professions; one, Mme. Alice Grutterink, is chief pharmacist of the Coolsingel Hospital in Rotterdam; another is pharmacist at the Hospital Wilhelmina in Amsterdam. Since 1880 a lady pharmacist, Mme. Charlotte Jacobs, sister of the woman doctor, has established herself in Batavia, where she owns a pharmacy, and conducts it with the assistance of her husband.

There are in Holland women dentists and numerous nurses, trained in the special schools of Croix Rouge in The Hague, or Croix Blanche at Amsterdam.<sup>4</sup>

In Sweden a royal statute of January 18, 1861, permitted women to become surgeons, and a decree of June 18, 1861, gave women the right to learn dentistry and to practice that profession. On June 3, 1870, by royal decree, women were granted the right to be examined for admission to the universities, to study medicine, and to graduate as doctors of medicine at the universities, and likewise to become practicing physicians. By a resolution of June 12, 1891, women are granted the privilege to be admitted as apprentices in apothecaries' shops, and after the required examination, to enjoy the same privileges as male chemists.<sup>5</sup>

In Denmark women obtained university privileges in 1875, and about half of those who enter the university take up the medical course. It is stated that four women have already become physicians.

In Iceland a decree of December 4, 1886, conferred upon women the right to the

<sup>1</sup>La femme au point de vue du droit public: Étude d'histoire et de législation comparée, par M. Ostrogorski, Paris, 1892.

<sup>2</sup>La femme au point de vue du droit public, par M. Ostrogorski.

<sup>3</sup>The Dutch law of December 25, 1878, created the employment of "aids" (apothekersbedienten).

<sup>4</sup>Revue Pédagogique Belge, 15 février 1895.

<sup>5</sup>Öfversigt af den Svenska Kvinnans Sociala Ställning. Utgifven i Anledning af Verldstställningen i Chicago år 1893. 4°. Stockholm, 1892.

degree of bachelor of letters (*bachelier ès-lettres*) and admitted women to the school of medicine and of theology. They may practice medicine.<sup>1</sup>

In Norway a law of June 14, 1884, gave university privileges to women; for the last six years they have been entitled to study pharmacy and to manage and own dispensaries, subject to conditions. In 1894 it is reported that a lady, Miss Eide, was graduated from the university, and was empowered to be an apothecary, the first woman apothecary in Norway.

In Finland women are admitted to the university as students under similar conditions as male students. In 1894 there were five women in the medical faculty at Helsingfors.<sup>2</sup> Conditions as to medical practice are not known to date, but they doubtless conform to those of the Russian Empire.

In Russia an imperial ordinance of August 2, 1890, regulates the conditions of future medical practice for women.<sup>3</sup>

A medical faculty for women was created in 1872, and the first year's course was attended by 106 women. During the second year there were 99 in attendance. After five years 69 women received diplomas. Political and financial reasons caused the cessation of the course, although it was successful in every way. Students were allowed to finish their studies, but no more were to be admitted.<sup>4</sup> In 1892 it was again reported that the medical school was to be reopened, or, rather, that a medical institute for women physicians was to be created at St. Petersburg. The city was to give the necessary buildings and 160,000 rubles,<sup>5</sup> the minister of public instruction 70,000 rubles, the minister of war 84,500 rubles, the Society for the Encouragement of Medical and Pedagogical Courses 2,500 rubles. A favorable report had been made by the Senate in regard to this medical institute, and later information indicates that the plan was carried out.

"The privy councillor, Dr. Von Anrep, has been appointed director of the Medical Institute for Women at St. Petersburg, which is designed chiefly to provide female practitioners of the healing art for the country districts of Russia. The courses of study, while giving special attention to diseases of women and children, and to obstetrics, embrace anatomy, physiology, general and special pathology, therapeutics, diagnostics, physic, chemistry, mineralogy, toxicology, surgery, sanitary science, dermatology, ophthalmology, psychiatry, neurasthenia, and kindred disorders, and extend over five years. A school of pharmacy is also to be established in connection with the institution." Candidates for admission are expected to be not less than 20 nor more than 35 years of age."<sup>6</sup>

Special courses of lectures were opened in 1891 at St. Petersburg, in the Alexander Hospital, for women who are working there as chemists' apprentices. Women are allowed to serve in this capacity in Russia if they have followed the full course of a girls' high school or have passed an examination equivalent to that demanded of the male candidates, including as much Latin as is required of the men. A practical difficulty arose, however, viz, that women were found to be much slower in mastering the profession of chemist than men, because they were insufficiently grounded in botany, chemistry, mineralogy, etc. In order to remove this difficulty the town hospital commission has opened special courses in the above-named hospital where women can receive instruction in pharmaceutics, botany, and chemistry. The necessary funds are provided by two anonymous members of the hospital commission. The lectures are to be delivered by professors of the Military Medical Academy.

The example thus set by private individuals has been speedily followed by the

<sup>1</sup> *Essai sur la condition politique de la femme*, par Louis Frank; *La femme au point de vue du droit public*, par M. Ostrogorski, and other sources of information.

<sup>2</sup> *Statistisk Årsbok för Finland*, 1895.

<sup>3</sup> *Essai sur la condition politique de la femme: Étude de sociologie et de législation*, par Louis Frank, 1892.

<sup>4</sup> *Revue Internationale de l'Enseignement*, 15 décembre 1892.

<sup>5</sup> The ruble is 39.3 cents in value.

<sup>6</sup> *The Nation*, October 17, 1895.



Russian Government, which, in connection with the discussion on the new regulations for pharmaceutical students, proposed to organize special courses for women, in which they may acquire a solid preparation for the profession.<sup>1</sup> These courses to be opened to women between the ages of 17 and 40 who have passed through a high school or equivalent institution, and, moreover, have passed a supplementary examination in Latin and science. After a three years' course students receive the rank of assistant without having to spend time in practical training as apprentices. It is explained that they will gain the necessary practical experience in the laboratories of the universities during their three years' course.

At the International Hygienic Congress, held in Budapest in 1894, reports and essays of much scientific value were given, among them one by Professor Erismann, of Moscow, the renowned Russian hygienist, regarding the study of medicine for women and the activity of women physicians in Russia. He arrived at the following conclusion: "Experience has shown us that in Russia women physicians have been very useful, and that in certain positions, as in female seminaries and among the Mahometan population, their places can not be filled by men. Experience has also shown us that our women physicians are not only perfectly competent to the usual practice of medicine in cities, but also fulfill with skill and perseverance the far more difficult duties which devolve upon a city physician in the dispensary work among the poor. Even in extraordinary cases, such as war and epidemics, they have shown themselves fully equal to the heaviest demands. The fears that the women physicians, through the peculiarities of their organization, would be hindered from following their vocation in a desirable manner, have proved groundless. Finally, experience has also shown us that among the people not only women and children, but also the men, have sought women physicians with the fullest confidence, and that in a high degree they have won the trust and love of the public. The combination of the tender character of the woman and her innate talent for the care of the sick, with medical knowledge, is therefore to be regarded as an exceedingly fortunate one. For these reasons it is desirable that opportunity should be afforded to women to gain a scientific education in medicine, such as is given to men, and after fulfilling the same preliminary preparations the same rights should be accorded to them as the State accords to men. Also there is no moral reason for separating the medical schools for women from those for men, or of building separate rooms for them. On the contrary, it is precisely for ethical reasons that it is desirable that to the women be accorded directly admission to the lectures of the already existing medical faculties."

In Austria the minister of worship and public instruction, by decree of May 6, 1878, forbade women registering as "hearers," or matriculating as students in the universities of the Empire,<sup>2</sup> but women possessing medical diplomas in other countries were permitted to practice medicine throughout the Austro-Hungarian dominions.<sup>3</sup>

The position of women in Germany, as regards the professions, was given in detail under, "The education of women in different countries." It is here reiterated that medical lectures have been attended by women in Freiburg University, in Baden, but until the Government opens its medical examinations to them the attendance upon medical lectures is of no practical value.

In Switzerland 4 women students were in the medical faculty of Geneva University as far back as 1877-78. In all the universities it is the medical faculty which seems to attract the greatest number of women students. More details regarding this matter are found under "Russian women in Swiss universities." It is reported from Egypt that a woman, graduate of the medical faculty in Paris, was appointed in 1892 or 1893, physician to the mother of the Khedive.

<sup>1</sup> Journal of Education, London, May, 1891.

<sup>2</sup> See later information concerning university education in a preceding section of this essay.

<sup>3</sup> *Essai sur la condition politique de la femme*, par Louis Frank; also *Verordnungsblatt für Cultus und Unterricht*, Nr. 15, 1878; also *Das Österreichische Staatsrecht*, Wien, 1891, p. 97.



In Roumania a lady, Mme. Olga Sacara Tulure, has just passed her examination as M. D. before the medical faculty in Bucharest. Her specialty is diseases of children.

In Bosnia and Herzegovina the need of highly educated women seems to be attracting attention, for the authorities have advertised for a woman physician whose appointment is to cover a one year period.

"Dr. Anna Bayerova and Dr. Bohmulla Kectova have been appointed to the position of provincial physician of Bosnia. Both of these women studied the regular course in high schools for girls, and afterwards prepared themselves by private study for the university. They studied the curriculum of the gymnasium, and passed their examinations before a professor. Then they applied for admission to the famous university of Prague, but were refused admission. They then entered the University of Zurich, and graduated with honors—Dr. Kectova having been appointed assistant to Professor Rose in the woman's department. Both returned after some years to Prague, and since the practice of medicine was prohibited took an extra course in obstetrics and followed this profession, waiting patiently for an opportunity to open the way for their sisters. Both of the doctors were patriots and earnest advocates of woman's cause, and their proceedings were watched with great interest.

"The appointment which came first, Dr. Anna Bayerova, was hailed with joy by all the women of Bohemia. She proved herself such a success that Dr. Kectova was called to a similar position in Bosnia. The ladies are under military rules and wear a military uniform."<sup>1</sup>

Women in the medical profession in Italy, Spain, and Portugal have already been referred to in an earlier part of this chapter, but it may be stated that "as early as the fourteenth century a female physician acquired a great reputation in medicine in Italy." In 1891 the medical school of Lisbon graduated a woman as M. D., and last year (1895) the Queen of Portugal took a similar degree. In Spain, since 1892, several women are on university rolls as students, principally in medicine and pharmacy. One of the assistant physicians at the city hospital [presumably in Madrid] is Doña Concepción Alexandre.<sup>2</sup>

The regulations governing the medical profession for women are not specifically stated in these last-mentioned countries.

#### WOMAN IN THE LAW.

Next to the medical profession in point of interest to women comes that of law, and endeavors are made to trace woman's advance in this field of action. Here at once difficulties are met, and one is inclined to say that woman's position in the legal profession is hardly recognizable as yet, so few in number are those who have conquered a place before the law in this and other countries. It is a matter of record that there were 56 women attorneys in this country in 1882, 31 of whom had graduated from law schools. In 1894-95 there were 65 women pursuing a law course in professional schools, and it may be said that the majority of law schools admit women when requested to do so.<sup>3</sup>

It is just to state that woman has not as yet had time to develop into a Webster or a Choate, and yet it is of interest to understand her present position before the law.

As is stated by Ada M. Bittenbender,<sup>4</sup> in regard to the full-fledged lawyer, "for various reasons quite a number of women admitted have not so far identified themselves with law practice. Others have allowed themselves to be drawn into temperance and other reform movements, but the greater portion at once settled down to follow their chosen pursuit with no deviation, and are ripening into able, experienced

<sup>1</sup> Mme. Josefina Humpal-Zeman in the *Woman's Journal*, Boston.

<sup>2</sup> *Frauenberuf*, December, 1892.

<sup>3</sup> Chapter on professional education in Report of Commissioner of Education for 1892-93.

<sup>4</sup> *Woman's Work in America*, by Annie Nathan Meyer.

lawyers, and winning their fair share of clientage. Some confine themselves mainly to an office practice, seldom or never appearing in public; others prefer court practice. Those who enter the forum are cordially countenanced by brother lawyers and acceptably received before court and jury. As a rule they are treated with the utmost courtesy by the bench, the bar, and other court officers."

The first woman in this country to be recognized as an attorney at law was Margaret Brent, back in the colonial days, to whom, as executrix of the estate of Leonard Calvert<sup>1</sup>—first lord proprietary and governor of Maryland—was accorded the privilege of being received as his lordship's attorney. She also appeared before the courts in her own affairs, as well as those of her brother.

"The first woman since the days of Mistress Brent to ask for and obtain admission to the bar of this country was Arabella A. Mansfield, of Mount Pleasant, Iowa. She studied in a law office and was admitted to the Iowa bar in June, 1869, under a statute providing only for admission of 'white male citizens.'"

The first woman to graduate regularly from a law school was Miss Ada H. Kepley, from Union College of Law in Chicago. This was in 1870.

A movement of benefit to the law students of Michigan University was the forming, in October, 1886, of the Equity Club, its object being to encourage each other in their chosen profession.

"Another association of women lawyers,<sup>2</sup> organized in 1888, is the Woman's International Bar Association, having for its object: (1) To open law schools to women; (2) to remove all disabilities to admission of women to the bar, and to secure their eligibility to the bench; (3) to disseminate knowledge concerning women's legal status; (4) to secure better legal conditions for women.

"Women lawyers are welcomed as members of bar associations established by their brothers in the profession. Many have availed themselves of this privilege."

Women lawyers of this country are claiming the right "to practice before all courts, State and national, the same as male lawyers," and when the existing statutes forbid they appeal to the legislature.

The position of women in the legal profession is hardly recognizable in other countries as yet, and it is said that Hawaii is the only country outside of the United States where women can practice law. Be this a fact or not, it is well known that women have been permitted to study in legal faculties of the universities in several countries, and only when she has desired to enter the arena with men has she found herself debarred by laws, regulations, and edicts, then or previously promulgated.

In 1889 a lady graduate of the University of Michigan established herself as a lawyer in the Sandwich Islands, entering her father's law office in Hawaii. Miss Hitchcock has also acted as sheriff ad interim.<sup>3</sup>

In Russia, in 1875, a woman requested permission to be a "femme avocat."

An imperial ukase of January 7, 1876, forbade women to enter upon the profession (*interdisant aux femmes l'accès de la fonction d'avocat*). A similar attitude was adopted between 1886 and 1889 by Italy, Switzerland, Denmark, and Belgium toward women who desired to enter upon the law.<sup>4</sup>

In Italy it seemed to be forgotten that in centuries past there were famous women teaching law in the universities or noted for their legal lore.<sup>5</sup>

<sup>1</sup>He was attorney (vide History of a Palatinate, by W. H. Browne) for Cecilius Calvert, second Lord Baltimore.

<sup>2</sup>Ada M. Bittenbender in *Woman's Work in America*, by Annie Nathan Meyer.

<sup>3</sup>Essai sur la condition politique de la femme, par Louis Frank.

<sup>4</sup>Tribunal of the Second Ward of Zurich, November 24, 1886; Federal tribunal of Switzerland, January 29, 1887; court at Turin, November 14, 1883; court of cassation (Turin), May 8, 1884; supreme court of Denmark, October 9, 1888; court of Brussels, December 12, 1888; Belgian court of cassation, November 11, 1889.

<sup>5</sup>La donna Italiana descritta da scrittrici italiane in una serie di conferenze tenute, all' Esposizione Beatrice in Firenze, 1890.

Arguments innumerable were presented at Turin when the Signorina Lidia Poët,<sup>1</sup> after finishing her legal studies, claimed a place in the legal fraternity, but these arguments were of no avail.

In Belgium, in 1888, Mlle. Marie Popelin, who had followed the legal course of one of the Belgian universities, essayed to break down the barriers against women lawyers, but was unsuccessful. The court at Brussels decided that women had neither "the leisure, force, nor aptitude necessary for the struggle and fatigues of the legal profession."<sup>2</sup>

France has but few law students as yet in the faculty of law, or rather the faculties, for, while there is only one University of France (having the degree-giving power), there are "faculties" in Paris and in fifteen other centers. Seven years ago a Roumanian lady, desiring to practice law in her own country, took the doctor's degree in Paris. A French lady obtained the same degree, and now teaches civil law in secondary schools for girls in Paris. It is stated that there are only 6 women graduates in law in France.

In Denmark, by royal decree of May 12, 1882,<sup>3</sup> women were allowed to present themselves for certain juridical examinations, but they were given to understand that they could not enter the legal profession.

In Finland, at the University of Helsingfors, there were three women following the course in law in the year 1893.<sup>4</sup>

In Sweden there are several examinations connected with the faculty of jurisprudence. The one for "candidatus juris utriusque" is the one most commonly taken. It requires five years' of hard study and has been passed by one lady.<sup>5</sup>

In Switzerland the position taken by Dr. Emily Kempin as a privat-docent in the faculty of law of the University of Zurich has been considered a great step in advance, and her request was carried to the Federal Council. Her first course of lectures, commencing March, 1892, was largely attended. In the University of Berne a young woman from Odessa carried off a prize in competition with her fellow-students of the legal faculty, and it was won by a dissertation of real merit.

In the Eastern countries a step in advance has been taken, as may be observed by the following statements:

"The first and only lady lawyer of India is Miss Sorabji, a clever Parsee. She was induced to study law by her desire to help her countrywomen, who are forbidden by religion and custom to receive legal advice from men. The young woman won academic honors in India, and afterwards went to England and studied at Oxford, where she was successful in her work and became a protégé of the late Master of Balliol. So far her desire to practice in India has not been practically realized, but although she has accepted a good post as director of women's education in Baroda she has by no means abandoned the cause to which with true Oriental fatalism she believes herself to be dedicated.

"Mme. Tel Seno, a Japanese lawyer, is said to be the only feminine member of the bar in the land of the Mikado. She was educated in America. In addition to actively following the duties of her profession, she takes a great and practical interest in the welfare of her sex, and has founded a training school for women."

#### WOMEN IN THEOLOGY.

Fewer women have entered the theological profession than either the medical or legal professions, yet "women bore an important part in the planting and early growth of the Christian Church. \* \* \* In its periods of persecution the church

<sup>1</sup> La donna e l'avvocatura, da Ferdinand Santoni de Sio, Roma, 1884.

<sup>2</sup> Essai sur la condition politique de la femme, par Louis Frank.

<sup>3</sup> La femme au point de vue du droit public, par M. Ostrogorski.

<sup>4</sup> Revue Internationale de l'Enseignement, 15 février 1896.

<sup>5</sup> Reports of the Swedish Ladies' Committee to the World's Columbian Exposition at Chicago, 1893, p. 39.



received no more devoted service than that given by its consecrated women. For its sake they cheerfully accepted martyrdom in its most cruel form. \* \* \* In all ages and in all lands women have given proof of a loyalty to Christianity as sincere as it was serviceable."<sup>1</sup>

To present an historical statement of woman's efforts in the work of the Christian ministry would be of interest, but sufficient data are not available for the purpose.

The entrance of women upon the work of the Christian ministry may be said to have begun with the preaching of Anne Hutchinson, who reached Boston in 1634, and there began preaching. As a result of her peculiar teachings she was banished from Massachusetts in 1637. Toward 1760 Barbara Heck gave the first impulse to Methodism in this country, and Susanna Wesley was the "real foundress of Methodism" in England; yet the Methodist Episcopal Church of America limits its recognition of women. The primitive Methodists have always employed women to reach the depraved classes.

In the United States about 50 women have been ordained in the Universalist Church, and all its schools and colleges save one are coeducational. In the year 1889 there were 35 women on its register. In the Unitarian Church there are quite a number of women preachers, some of them regular graduates from theological schools, others simply acting as helpmeets to their husbands. The Quakers regularly admit women as preachers. The Baptist clergymen freely admit women to their pulpits to speak upon great moral questions, but that church has taken no steps leading to woman's admission to the ministry. The Presbyterians, by a vote of 93 to 24, decided in 1889 that "the ordination of a woman as deacon is in harmony with the New Testament and the constitution of the apostolic church."

The Protestant Episcopal Church recognizes the value of the sisterhoods, while orthodox Congregationalists are now giving recognition to women in the theological field.

In 1893-94 there were 10 women studying for the ministry in colleges of the Congregational denomination, 6 in Baptist colleges, and 4 in a Universalist college. (For further information vide chapter on Professional Education in the Report of the Commissioner of Education for 1893-94.)

Woman does not appear in the ministry in foreign countries, but she is often allowed to take part by vote or otherwise in parochial affairs. (Vide "School legislation abroad.")

In the countries where she is allowed university privileges the theological faculties may or may not be opened to her, but study therein does not necessarily lead to the ministerial functions.

The Greek-Oriental Church, prior to 369, admitted women to the priesthood. In the Occident they became deaconesses, but in the fifth century two popes and three councils definitely forbade the holding of such position.<sup>2</sup>

In Iceland a decree of December 4, 1886, rendered the theological school of Reykjavik accessible to women, but the obtaining of a degree did not give them the privilege of preaching.<sup>2</sup>

In Finland, in 1895, a woman requested to be enrolled as a student of theology in the university at Helsingfors. This is stated to be the first woman who has applied for such study.<sup>3</sup>

In Sweden the theological faculty in the universities is not open to women.<sup>4</sup>

Other information is lacking in regard to women in the ministry, but each year brings new efforts of womankind to enter upon the professions, hence a future chapter may present more of interest on this subject.

<sup>1</sup> Rev. Ada C. Bowles in *Woman's Work in America*, by Annie Nathan Meyer.

<sup>2</sup> *Essai sur la condition de la femme politique* par Louis Frank.

<sup>3</sup> *Revue Internationale de l'Enseignement*, 15 février 1896.

<sup>4</sup> Reports of Swedish Ladies' Committee to the World's Columbian Exposition at Chicago, 1893, p. 39.



## WOMAN AS A PROMOTIVE FORCE IN EDUCATION.

The gradual efforts toward improvement of educational conditions for women have been reviewed. The early struggles in different parts of the United States have been indicated, as woman recognized the many obstacles to be overcome ere a firm attitude toward life and life's duties could be attained. The general conditions in the older continental countries have been presented, and observation indicates that the woman movement varies in intensity in accordance with the established customs of the different countries. A general statement of women in the professions has been added, and, while much more might be gleaned from many sources, the endeavor now is to indicate woman's position as a directive force in the States and in other countries, as far as that information is at hand.

## SCHOOL LEGISLATION IN THE UNITED STATES.

As a means of understanding the attitude of the different States toward the employ of women in positions where her voice is heard in educational affairs, a careful study of the school laws has been made, so that a clear understanding may be had of what the law really allows. This statement was originally compiled, by the present essayist, for the *Woman's Journal*, of Boston, and has since been reproduced, in form of leaflet, and sent (by the editors) to the legislators of doubtful States. It has also appeared in *Woman's Work in America*, and is now revised to date of 1893. Further revision, if there be such, will appear from year to year.

The States and Territories which, according to the latest issue of their school laws, do not give women any voice in school affairs are twelve: Arkansas, Delaware, Georgia, Maryland, North Carolina, South Carolina, Virginia, West Virginia, Alaska, Indian Territory, New Mexico, and Utah.<sup>1</sup>

The States and Territories which confer certain privileges upon women are 36 in number. The privileges of 28 of these have been compiled from the school laws; the information in regard to the others is taken from returns<sup>2</sup> made to this office:

*Alabama*.—Women teachers are eligible for appointment on county boards, but are never appointed. (Return 1893.)

*California*.—No person shall, on account of sex, be disqualified from entering or pursuing any lawful business, vocation, or profession. Women over the age of 21 years, who are citizens of the United States and of this State, shall be eligible to all educational offices in the State, except those from which they are excluded by the Constitution. And more than this, no person shall be debarred admission to any of the collegiate departments of the university on account of sex. (School law, 1888.)

Women are eligible on district and county boards. Women can not vote for school officers, but a bill was before the legislature in February, 1893, authorizing them to do so. (Return, 1893.)<sup>3</sup>

*Colorado*.—No person shall be denied the right to vote at any school district election, or to hold any school district office on account of sex. (School law, 1887.)

*Connecticut*.—No person shall be deemed ineligible to serve as a member of any board of education, board of school visitors, school committee, or district committee, or disqualified from holding such office by reason of sex. (School law, 1888.)

*Florida*.—A widowed mother or female guardian of a child of school age may vote for district school officers. (Return 1893.)

*Illinois*.—Women are eligible to any office under the general or special school laws. (School law, 1887.)

<sup>1</sup> Since the admission of Utah as a State there have doubtless been changes, which will be chronicled later.

<sup>2</sup> From school laws of States and Territories to date of 1890, except in a few States where they have been examined to the latest date available, and from returns made to this office to date of February, 1893. (See Report of Commissioner of Education, 1891-92, vol. 2, p. 792.)

<sup>3</sup> See Report of Commissioner of Education, 1891-92, vol. 2, pp. 792-793.

*Indiana*.—Women not married nor minors, who pay taxes and are listed as parents, guardians, or heads of families, may vote at school meetings. (Decision of attorney-general.) The attorney-general questions the constitutionality of an act to authorize the election of women to school offices approved April 14, 1881. The State constitution reads, "No person shall be elected or appointed as a county officer who shall not be an elector of the county."

Women are eligible as township and city school trustees. (Return, 1893.)<sup>1</sup>

*Iowa*.—No person shall be deemed ineligible, by reason of sex, to any school office in the State. No person who may have been or shall be elected or appointed to the office of county superintendent of common schools, or school director, shall be deprived of office by reason of sex. (School law, 1888.)

*Kansas*.—Women over 21 years of age, residents of the district, are allowed to vote at district meetings. (School laws, 1885.)

Women are eligible to all school offices. Their vote affects disposition of school money. (Return, 1893.)<sup>1</sup>

*Kentucky*.—Widows qualified to pay taxes, and having children of school age, may vote at elections for district school trustees. (School law, 1886.) In 1894 the law read, "Any widow having a child 6 to 20 years of age, and any widow or spinster having a ward between the ages of 6 to 20 years, may also vote on district tax." By sufferance women have also served as county superintendents. (Return, 1893.)<sup>1</sup>

*Louisiana*.—Women over 21 years are eligible to any office of control or management under school laws of the State. (Constitution, art. 232.)

*Maine*.—Women are eligible to the office of supervisor of schools and superintending school committee. (School law, 1889.)

Women are eligible to township school offices. (Return, 1893.)<sup>1</sup>

Women are eligible to the office of superintending school committee. (School law, 1895.)

*Massachusetts*.—Women are eligible to serve on school committees and to vote at school meetings for members of school committees. (School law, 1883.)

Women are eligible to township school offices, and they may vote for township school officers—which vote affects disposition of school moneys.

Three women have been appointed on State board. (Return, 1893.)<sup>1</sup>

*Michigan*.—Women are eligible to election to district offices, to the office of school inspector, and are qualified to vote at district meetings. (School law, 1885.) They are also eligible to township school offices. (Return, 1893.)<sup>1</sup>

The public acts, 1893, read thus:

"SEC. 238. In all school, city, and village elections hereafter held in this State women who are able to read the constitution of the State of Michigan, printed in the English language, shall be allowed to vote for all school, village, and city officers, and on all questions pertaining to school, village, and city regulations on the same terms and conditions prescribed by law for male citizens. Before any woman shall be registered as a voter the board of registration shall require her to read, and she shall read in the presence of said board at least one section of the constitution of this State in the English language.

"SEC. 239. All laws of this State prescribing the qualifications of voters at school, village, and city elections therein shall apply to women, and women who are able to read the constitution of Michigan, as above provided, shall enjoy all the rights, privileges, and immunities, and be subject to all the penalties for voters at such elections.

"SEC. 240. Women who are entitled to vote under the preceding sections of this act shall be subject to all laws relating to the registration of voters and be liable to all penalties attached to the violation of such laws, and their names shall be received and registered by the various boards of registration at the time and in the manner required by law for other voters." (General school laws, 1893.)

<sup>1</sup>See Report of Commissioner of Education, 1891-92, vol. 2, pp. 792-793.

*Minnesota.*—Women of 21 and over who have resided in the United States one year and in this State for four months preceding the election may vote for school officers, or for any measure relating to schools which may come up in school district meetings. Any woman so entitled to vote may hold any office pertaining to the management of schools. (School law, 1887.)

Women may vote for county school officers. (Return, 1893.)<sup>1</sup>

*Mississippi.*—Women who are heads of families may vote for district school officers. (Return, 1893.)

*Missouri.*—Four women have been elected as county school commissioners, but it is presumed that the supreme court will decide that this is illegal. (Return, 1893.)

*Nebraska.*—Women 21 years of age, resident of the district and owners of property, or having children to educate, may vote in district meetings. (School law, 1885.)

They are also eligible as district and county officers and for city superintendent. Their vote affects disposition of school money.<sup>1</sup> (Return, 1893.)

*Nevada.*—Women are eligible to district school offices, and two hold such offices. (Return, 1893.)

*New Hampshire.*—Women may vote at school district meetings if they have resided and had a home in the district for three months next preceding such meetings. They may hold town and district school offices. (School law, 1886.)

Women are eligible to all school offices. (Return, 1893.)<sup>1</sup>

*New Jersey.*—Women over 21 years of age, resident of the State for one year and of the county for five months preceding such meeting, may vote at school meetings. They are eligible to the office of school trustee. (School law, 1887.)

They may vote for district school officers, which vote affects disposition of school money, and they are eligible to district school offices in districts organized under the general school laws. (Return, 1893.)<sup>1</sup>

By decision of supreme court women can not vote for the election of members of boards of education, but may on other occasions. (Law, 1895.)

*New York.*—No person shall be deemed to be ineligible to serve as any school officer or to vote at any school meeting by reason of sex who has the other qualifications now required by law. This permits women to act as school trustees and to vote at district meetings if residents of the district, holding taxable property, and over 21 years of age. (School law, 1887.)

The context of the consolidated school law of 1894 is more explicit. It states: Every person of full age residing in any school district and who has resided therein for a period of thirty days next preceding any annual or special meeting held therein, and a citizen of the United States, who owns or hires, or is in the possession, under a contract of purchase, of real property in such school district liable to taxation for school purposes; and every such resident of such district, who is a citizen of the United States, of 21 years of age, and is the parent of a child or children of school age, some one or more of whom shall have attended the district school in said district for a period of at least eight weeks within one year preceding such school meeting; and every such person not being the parent who shall have permanently residing with him or her a child or children of school age, some one or more of whom shall have attended the district school in said district for a period of at least eight weeks within one year preceding such school meeting; and every such resident and citizen as aforesaid who owns any personal property, assessed on the last preceding assessment roll of the town, exceeding \$50 in value, exclusive of such as is exempt from execution, and no other, shall be entitled to vote at any school meeting held in such district for all school district officers and upon all matters which may be brought before said meeting. No person shall be deemed to be ineligible to vote at any such school district meeting by reason of sex who has one or more of the other qualifications required by this section. (School law, 1894.)

<sup>1</sup>Report of Commissioner of Education, 1891-92, vol. 2, pp. 792-793.



*Ohio*.—Every woman born or naturalized in the United States, of the age of 21 years and upwards, who shall have been resident of the State one year and of the county, town, township, or other election district such time as the law provides for men preceding any election held for the purpose of choosing any school director, member of the board of education, or school council, under the general or special school laws of the State, shall be entitled to vote, and be voted for, at such election for any such officer or officers. (Amendment to school law of 1894.)

*Oregon*.—Women who are widows and have children to educate, and taxable property in the district, shall be entitled to vote at district meetings. (School law, 1887.) They are eligible to all school offices. (Return, 1893.)<sup>1</sup>

*Pennsylvania*.—Women 21 years of age and upward are eligible not only to the office of county superintendent, but to any office of control or management under the school laws of the State. (School law, 1888.) As directors or comptrollers, women vote for county, city, or borough superintendents. (Return, 1893.)<sup>1</sup>

*Rhode Island*.—Women can be elected to the office of school committee, and a woman is as eligible as a man for school superintendent. (School law, 1882.) Women are eligible to township school offices and 6 women hold positions. (Return, 1893.)

*Tennessee*.—Women of the age of 21 years, and otherwise possessing the necessary qualifications, are eligible for the position of county superintendent, and twelve hold county school offices. (School laws 1889 and 1895; return 1893.)

*Texas*.—Women seem to be allowed as city superintendents, and there appears to be no legal barrier to women serving as district trustees. (Return, 1893.)

*Vermont*.—Women have the same right to vote as men have in all school district meetings, and in the election of school commissioners in towns and cities, and the same right to hold school offices, except in cases otherwise provided. (School law, 1893.)

*Wisconsin*.—Every woman who is a citizen of this State of the age of 21 years or upward (except those excluded by section 2, article 3, of the Wisconsin constitution), who has resided within the State one year, and in the election district where she offers to vote ten days next preceding any election pertaining to school matters, shall have a right to vote at such elections. Every woman of 21 years of age and upward may be elected or appointed as director, treasurer, or clerk of a school district, director or secretary of a town board under the township system, member of a board of education in cities, or county superintendent. (School law, 1885.)

Before proceeding to quote the laws for the Territories, and those which have become States within the past few years, it may be well to state that the action taken by the constitutional conventions of the new States has, of course, superseded the former legislation enacted therein as Territories. Each of the State constitutions adopted by the voters contained important concessions in its favor, and no one of them expressly excludes women as voters. To make the matter more clear to the very latest date, it has been deemed advisable to place side by side the latest laws of State and Territory where the latter has been evolved into the former, so that steps in advance, if there be any, may be more easily observed.

*Arizona*.—The Territorial law provides that no person shall be denied the right to vote at any school district election or to hold any school district office on account of sex. (Biennial Rept., 1883-84.)

*Dakota Territory*.—In all elections held under the provisions of this act, all persons who are qualified electors under the general laws of the Territory, and all women of 21 years and over, having the necessary qualifications as to citizenship and residence required by the general laws, and who have children of school age under their care or control, are qualified voters. Women having the requisite qualifications are eligible to the office of school director, judge or clerk of election, township clerk, or county superintendent of public schools. (School law, 1887.)

<sup>1</sup> Report of Commissioner of Education, 1891-92, vol. 2, pp. 792-793.



According to the latest State laws:

(1) In South Dakota, the constitution grants women school suffrage, and provides that the first State legislature shall submit the question of full woman suffrage to the voters. The school offices are all elective offices. (Return, 1893.)

(2) In North Dakota, the constitution provides that women "may vote for all school officers and on any question pertaining to school matters, and may be eligible to any school office." [At date of going to print a woman is superintendent of public instruction.] It also provides that any legislature may extend or restrict suffrage, to take effect when ratified by the voters. (School Laws, July 1, 1893.)

*Idaho Territory*.—The right of citizens of any school district to vote at any school election, or upon any school matter, or for county superintendent, or to hold office as school trustee or county superintendent, shall not be denied or abridged on account of sex. (School law, 1885.)

In the State of Idaho the constitution grants school suffrage to women, subject to future revision by the legislature.

*Montana Territory*.—Every person, without regard to sex, over 21 years of age, resident of a school district and a taxable inhabitant, is entitled to vote at the annual school meeting for the election of trustees. All persons otherwise qualified are eligible to the office of county superintendent of common schools without regard to sex. (School law, 1887.)

In the State of Montana, the constitution provides as follows: "Upon all questions submitted to the vote of the taxpayers of the State, or any political division thereof, women who are taxpayers, and possessed of the qualifications for the right of suffrage required of men by this constitution, shall equally with men have the right to vote."

Women are eligible to district school offices. (Vide Return, 1893; also School laws, 1895.)

*Oklahoma*.—Women may vote for all school officers, and are eligible to district school offices. (Return, 1893.)

*Washington Territory*.—Women over the age of 21 years, resident of the school district for three months immediately preceding any district meeting and liable to taxation, are legal voters at any school meeting. They are also eligible to hold or be elected to any school office. (School law, 1885-86.)

In Washington State, the constitution empowers the legislature to grant school suffrage to women, and submitted full woman suffrage as a separate article along with the constitution to the voters, but it failed to receive a majority. According to the school law of 1893 (p. 34), every person, male or female, over the age of 21 years, who shall have resided in the school district for thirty days immediately preceding any school election, and in the State one year, and is otherwise, except as to sex, qualified to vote at any general election, shall be a legal voter at any school election, and no other person shall be allowed to vote. According to the answer to an inquiry, made by this office in 1893, the courts hold that women are not eligible to the office of county superintendent, but women have been elected to the office.

*Wyoming Territory*.—Every woman of the age of 21 years residing in the Territory may, at every election to be holden under the laws thereof, cast her vote, and her rights to the elective franchise and to hold office shall be the same under the election laws of the Territory as those of electors. (Revised Statutes, 1887.)

In Wyoming, the State constitution adopted by the voters grants full suffrage to women, and also, by a special article in its bill of rights, prohibits political distinctions on account of sex. This constitution was adopted by a vote of 8 to 1.

#### SCHOOL LEGISLATION ABROAD.

In foreign countries, woman's exact position in school legislation is often difficult to understand. Her connection with local government administration is often clearly stated, and incidentally her power of voting in educational and ecclesiastical

affairs is mentioned. Hence, if there seems to be divergence from the main question it is done so as to more clearly indicate woman's position in the different countries.

*Great Britain.*—The local government act of 1888 admitted women to electoral privileges in England and that of 1889 to similar privilege in Scotland.<sup>1</sup> In school boards and boards of guardians (for the administration of the poor law), unmarried women are in the position of men. Married women can sit as members of school boards, but it is a question whether they can vote in school board elections. In some parts of England the officials accept their votes, in other parts they refuse them. In county council elections women can vote (if unmarried), but they can not sit as county councillors. In vestries (a kind of small county council) it is an unsettled question whether women can sit, but they vote in the vestry elections if unmarried. Such was the custom until the parish council bill was passed in 1894. This entitles women to vote for and sit on the parish and district councils and vestries, marriage being no disqualification.<sup>2</sup> In the colonies matters have been carried still further, for the people in a township in New Zealand elected a woman mayor, and South Australia has granted woman suffrage. English women hold the place of churchwarden, are tax collectors, and registrars of births and deaths.<sup>3</sup> In 1873 the first inspectress of working establishments was appointed by the Government in England, and in 1875 a woman was appointed poor law guardian.

In six parishes of England the parishioners have the right of appointing the vicar, and both men and women take part in the election.<sup>4</sup>

Since 1869 Englishwomen possess the municipal franchise "for all purposes connected with and having reference to the right to vote in the election of councilors, auditor, and assessors."

In the spring of 1894 three women were appointed as members of the royal commission on secondary education. This is the first time that women have held such places.

The women of Ireland take no part in administrative offices, except in Belfast, where they are authorized to take part in the election of harbor commissioners, and about 5,000 of them have qualified to vote for councilors.<sup>4</sup>

"The legal status of women in England," a paper prepared by Eliza Orme, bachelor of law, University of London, for the World's Auxiliary Congress on Jurisprudence and Law Reform, Chicago, 1893, gives such valuable information in regard to the above question that the greater part of it is here incorporated:

"With regard to constitutional rights, English women hold a subordinate position, slightly improved by legislation during the last twenty-five years. The sovereign may be a woman. Peeresses, even those in their own right, can not sit or vote in the Upper House. In the House of Commons women can not sit, nor can they vote in parliamentary elections. In local government their position is better, chiefly because the acts of Parliament relating to it are modern.

"(a) In school boards and boards of guardians (for the administration of the poor law), unmarried women are in the position of men. Married women can sit as members of school boards, but it is a question whether they can vote in school-board elections. In some parts of England the officials accept their votes; in other parts they refuse them.

"(b) In county council elections women can vote (if unmarried), but they can not sit as county councillors.

"(c) In vestries (a kind of small county council), it is an unsettled question whether women can sit, but they vote in the vestry elections if unmarried.

<sup>1</sup> La femme au point de vue du droit public, par M. Ostrogorski, 1892.

<sup>2</sup> Woman's Journal, Boston, Dec. 29, 1894.

<sup>3</sup> De la condition des femmes au point de vue de l'exercice des droits publics et politiques. Étude de législation comparée, par Léon Giraud, Paris, 1891.

<sup>4</sup> Essai sur la condition politique de la femme, par Louis Frank, Paris, 1892.

"There is an agitation on foot to make women, whether married or single, on an equal footing with men in respect of all these franchises. It is supported and opposed by members of both political parties.

"With regard to personal rights, unmarried women are in the same position as men, except that under the factories and workshop acts there are certain restrictions of their labor. For instance, in most industries they are prohibited from working at night, or for more than so many hours in a week. In some cases this has resulted in the displacement of women by young men. In other cases, where it has been impossible to do without women's work, it has resulted in night work being discontinued and the hours per week reduced for the whole staff, men as well as women. Married women have not complete personal liberty, but their rights are increasing by the alteration of the law, and it is difficult, in view of recently decided cases, to give an accurate account of it at the present moment. \* \* \*

"The laws of property give unmarried women the same position as men. Married women before 1870 were unprotected from their husbands except by the courts of equity, which upheld settlements made in their favor; and in other ways assisted them when property came to them by will or otherwise. Since 1870 various acts of Parliament have been passed giving married women the right to contract, to convey property, to retain their own earnings, and in many other ways to occupy the position of independent owners of property. Wealthy persons continue to protect their female relatives with settlements as before, while the poorer classes derive but little benefit from the change of law. \* \* \*

"With regard to employment, women are handicapped in England more by custom than by law. Except for the factory acts I have mentioned, industrial pursuits are freely open to them. They are employed by the Government in the post-office, and occasionally in prisons and other public institutions. They are largely employed as clerks, and no legal disqualification exists in occupations of this class. The professions are not open to them except in the case of medicine. The profession of law is in two branches with us. Persons practicing in the higher law courts are barristers, and those who prepare documents, advise clients, and conduct business in less important cases in police courts, etc., are solicitors. To enable women to become barristers they must be allowed to enter the terms of court as students, and this depends entirely on the will of the leading members of the profession. To enable them to become solicitors an act of Parliament would be necessary. Two women have been for some years practicing conveyancing, but without legal qualification. They have drawn up wills and simple agreements, which under the English law may be prepared by persons not qualified as barristers or solicitors. Other conveyancing, such as drafting deeds, they have done for qualified practitioners who have used the work in accordance with the maxim '*qui facit per alium, facit per se.*'

"I am not aware of any other important heads under which the status of English women is peculiar."<sup>1</sup>

*France.*—In the Middle Ages, women of the nobility were not excluded from political power; in the States-General (*États généraux*) women took part in electoral reunions; during the Reign of Terror they claimed that as they had the right to mount the scaffold, they ought equally to mount "*à la tribune.*" Discussions followed at different dates in regard to their paying taxes if they were not allowed a voice concerning their own property. In 1793, in matters of local self-government, it was decided that "*tout individu de tout sexe ayant droit au partage et agé de 21 ans aura droit de voter.*" Women<sup>2</sup> in France are allowed to occupy the position of postmaster, prison inspector, teacher, director of infant and normal schools. As a normal school director woman may take part in the election of members of the council in charge of elementary education and women are members of the provincial

<sup>1</sup> Reproduced from *Woman's Journal*, October 7, 1893.

<sup>2</sup> *Essai sur la condition politique de la femme*, par Louis Frank.



councils. Possessing the power of the "electorat,"<sup>1</sup> she is not ineligible to a seat in the higher council (*conseil supérieur*), which has administrative and consultative powers, and for several years a woman has been member of that council. As is stated by M. Paul Janet, in *L'éducation des femmes*, the construction of the edifice has only just commenced. Experience alone will indicate the outcome of the instruction given. All progress has been attained by struggling against prejudice. In the Middle Ages the cultivation of the sciences was first considered to be sorcery; learning was only supposed to be for the priests; at each step there was opposition—a struggle—but at last victory. So will it be in regard to the education of women. The freedom of choice is hers; knowledge is necessarily acquired without regard to sex; freedom of action and thought is the foundation of dignity and morality.<sup>2</sup>

In *Denmark* women are excluded from taking part in the affairs of local government, but in *Iceland*, its dependency, with its 75,000 inhabitants, widows and spinsters of property are privileged to vote in all church and parish matters, and they hold an especially independent position. Iceland has an independent legislative assembly, the "Althing," whose decisions are to be sanctioned by the King of Denmark.<sup>1</sup>

In 1895 a bill passed both houses of the "Althing" making women eligible to election on county and city boards. The signature of the King of Denmark is required to make this a law. Whether he has sanctioned this is not known at date of going to press.<sup>3</sup>

For its own local affairs Iceland is divided into twenty-two districts (*sysler*), which are again divided into communes (*krapper*). The magistracy in these districts are appointed by the electors. According to a law of May 12, 1882, women have the right to take part in these elections as well as in the reunions of parishioners for the deciding of ecclesiastical affairs.

In *Norway* women have no part in local government, except in school administration, since 1889. In cities they are eligible to positions on school committees, and those who have children can vote for the election of inspectors. In rural communities woman's privileges are even greater; each district has an assembly which votes for school funds, decides other school affairs, and appoints inspectors. Women and men who pay school taxes take part in these assemblies. Fathers and mothers aid in deciding questions which do not appertain to expenditures, even if they do not contribute to the school funds. Women are also eligible to the position of inspector.<sup>1</sup>

In *Sweden* unmarried women take part in the rural assembly meetings where there is no communal council, and vote at the elections which precede the formation of the councils. Women are eligible to positions on municipal committees for aiding the poor, and also as members of the school board at Stockholm and elsewhere. In 1884 a commission was appointed to examine into the needs of higher education for women, and two women were appointed on the commission. Women occupy positions as teachers, lady principals of schools, members of school boards, and as inspectors; in fact, if property holders, they are allowed many privileges in the community, in trades as well as in school affairs.

Since 1883 they have been allowed to take part in the nomination of pastors; since 1889 they have been eligible to membership in "the administrative council for public elementary instruction"; since 1861 they have had the right to serve as organists in Lutheran churches.<sup>4</sup>

In *Finland* women have been authorized to act as members of school committees since 1869, and as active members of committees on public charities since 1889. As far as administrative questions are concerned, there is political equality of the sexes; unmarried women have the same rights as men in parochial assemblies, in so far as

<sup>1</sup> La femme au point de vue du droit public, par M. Ostrogorski.

<sup>2</sup> In *Revue des Deux Mondes*, September, 1883.

<sup>3</sup> *Woman's Journal*, March 21, 1896.

<sup>4</sup> *Öfversigt af den Svenska kvinnans Sociala Ställning*, and *Essai sur la condition politique de la femme*, par Louis Frank.



the regulation of ecclesiastical matters and the nomination of the Lutheran pastors are concerned. They may also vote in general assembly (*radhusstanma*) in proportion to the amount of their taxes for municipal expenditures, but they are not eligible for the position of municipal councilor.<sup>1</sup>

In *Russia* the women of rural communities seem to have the rights of a "feme sole," to use the Anglo-Norman term; in Germanic countries<sup>2</sup> she is admitted, by proxy generally, to a vote in local matters where, as a property owner, she has interests, but how far this extends to school legislation is not clear.

In *Bohemia* women are admitted into the councils of the committees having charge of the poor of the city or town. In different subdivisions of Germany, Switzerland, and Austria the electoral privileges accorded to property holders of the two sexes vary, and, as the educational side does not distinctly appear, the laws will not be cited. In the Latin countries woman is invariably excluded from participation in the administration of communal affairs. In Italy,<sup>1</sup> however, she is connected with the administration of infant schools and, since July 17, 1890, with the administration of public charities.

Investigation of the constitutions of the Central and South American countries would seem to indicate that women are not excluded from the exercise of political rights, and yet, with perhaps an exception in favor of Ecuador and Chile, it is not apparent that they make use of such privileges.

#### MARRIAGE RATE OF COLLEGE-BRED WOMEN.

The after life of the woman graduate from college is of interest to many, and several articles have appeared on this subject. Statistics of the marriage rate of women from coeducational and women's colleges, by section and by country and at different dates, have appeared in several magazines.<sup>3</sup> A few of the main facts are here presented. Generally speaking, the college women marry rather late, and the rate of marriage is lower in the New England and Middle States than in the West. The percentage of marriages among the graduates of coeducational and women's colleges was presented as follows in the *Overland Monthly* in 1890:

|  | Per cent. |
|--|-----------|
| New England coeducational colleges .....             | 24.7      |
| New England women's colleges .....                   | 14.8      |
| New York coeducational colleges, last 12 years ..... | 25.7      |
| New York women's colleges, last 12 years .....       | 20.6      |
| All coeducational colleges .....                     | 34.8      |
| All women's colleges .....                           | 22.9      |
| Western coeducational colleges .....                 | 34.6      |

The comparative probability of marriage in the case of a coeducationally as against a separately college-bred girl would appear to be nearly as 5 to 3 in New England; in New York, as 5 to 4; on an average, as 3 to 2. There are no women's colleges in the West to form a basis of comparison. The marriage rate of women, as represented by age, has been compiled by different persons, but neither by age nor section can absolutely accurate statements be presented. The conditions vary greatly from year to year; rates of marriage in different sections may increase or decrease within a few years' period, and the question of marriage rate according to age is also mutable.

"Under 25 years old," writes Millicent W. Shinn in the *Century*, in 1895, "college women rarely marry; of 277 graduates of the latest three classes but 10 are married. If these youngest classes are left out of account, so that we consider only women who have passed 25, we find 32.7 per cent married; after the age of 30 is passed,

<sup>1</sup> *Essai sur la condition politique de la femme*, par Louis Frank.

<sup>2</sup> *La femme au point de vue du droit public*, par M. Ostrogorski.

<sup>3</sup> *Overland Monthly*, April, 1890, pp. 443-445; *Century Magazine*, 1895 (article by Millicent W. Shinn); *Nineteenth Century*, June 1, 1895, pp. 955-960.

43.7; after 35 the rate becomes 49.7, while of those who have passed 40 years 54.5 per cent are married. The census tables do not fix exactly the general marriage rate for women of this age, but it is not far from 90 per cent.

"The ultimate probability of a college woman's marriage, therefore, seems to be below 55 per cent, against 90 per cent for other women—not quite two-thirds as great. The college woman marries later. The most rapid increase in the rate, in the figures just given for college women, is between the ages of 25 and 30, showing marriage most frequent at this period; while for women in general it is more frequent between 20 and 25. The census shows 9.7 per cent of all girls between 15 and 20 married—an age at which virtually no college women ever marry."

This subject is now under discussion and research by members of the collegiate *alumnæ*, and hence a more epitome is here presented. In future chapters it is intended to deal more fully with the question, if statements of additional value can be obtained.

In regard to the marriage rate in England, an article by Mrs. J. E. H. Gordon, on "The after careers of university-educated women," in the *Nineteenth Century*, gives explicit details. She says that the total number of students who left Newnham College from October, 1871, to June, 1893, was 720. Leaving out 16 who have died and 37 foreigners who have gone back to their own countries, we find that 374 are at the present time engaged in teaching as a profession. Forty-seven have married, including 9 or 10 of the lecturers and teachers. \* \* \*

"At Girton the number of students who had been in residence since the foundation of the college up to the time when the report was published, in June, 1893, was 467. Of these, 75 had not yet completed their course of training; but of the 335 who obtained degree certificates, 123 engaged in teaching, 45 were married, 2 were missionaries, 6 were in Government employment, 4 were engaged in medical work, and 6 were dead.

"Judging from the reports issued by these two Cambridge colleges, the larger proportion of university-educated women do not seem to make marriage their career in life. Of the ex-students of Newnham only 120 out of 720 have married, and at Girton 45 out of 335. \* \* \*

"Of the 79 students who have obtained the certificate for the mathematical tripos, 6 have married; of the 97 who passed the classical tripos, 10 have married; of the 47 who passed the natural-science tripos, 7 have married. The only student who passed the theological tripos has married. Out of the 30 who passed the historical tripos, 4 have married. Of the 21 who passed the moral-science tripos, 3 have married. But of the 40 lady students who have taken the ordinary pass degree, 15 have married, a much larger proportion, as will be seen, than among the students who have obtained the honors-degree certificate.

"From the Newnham College report I have not been able to ascertain the percentages of marriages among the ex-students who have taken merely the ordinary degree; but an examination of the tripos lists gives very much the same results as those of Girton—namely, out of 85 who have passed the mathematical tripos, 5 have married; of the 65 in the classical tripos, 8 married; of the 74 in the natural-science tripos, 10 married; of the 64 in the historical tripos, 9 married; and of the 38 in the mediæval and modern language tripos, 1 married. The only student who passed the law tripos has not yet married.

"It appears, therefore, that about 1 in 10 of those who take honors at Girton marries, as against 1 in 9 who take honors at Newnham; while about 2 in 5 marry of those who take an ordinary degree at Girton. Leaving out theology and law, as to which the data are insufficient, the order of precedence (matrimonially) of the various studies is as follows: At Girton, elementary studies, natural science, moral science, history, classics, mathematics, and, last of all, mediæval and modern languages. At Newnham, moral science, history, natural science, classics, mathematics, and again last, mediæval and modern languages. \* \* \*

"Turning to the reports furnished for our information by the women's colleges at Oxford, we find that of the 173 students who left Somerville College between the years 1879 and 1892, 73 are engaged in teaching, 29 are married, and 1 is an assistant librarian of the Royal Society.

"\* \* \* The report printed by the principal of Lady Margaret's Hall gives fewer statistics, but one gathers that the larger proportion of the ex-students now at work are engaged in teaching. The number of students in residence at Lady Margaret's Hall averages 38. Holloway College has only been at work for seven years, and there has not been time for much development in the after careers of students; but of the 197 who have left, 7 are married, about 69 are teaching or preparing to teach, 2 are nurses, 2 are studying at the School of Medicine for Women, and about 47 are residing at home."

From Victoria College, Belfast, Mrs. Byers sends the following particulars: "In addition to over 1,500 students of Victoria College, certificated by the Queen's University, Ireland; Trinity College, Dublin; Cambridge, Edinburgh, and London universities; the College of Preceptors, London, and the Intermediate Education Board, Ireland, there are 51 graduates of the Royal University, Ireland. These include graduates in arts and medicine. Eight former Victorians are at present medical undergraduates, with a view to becoming medical missionaries.

"Many have become wives of missionaries, and 16 unmarried ladies, former Victorians, are at present engaged in zenana medical and educational work among the women of Syria, India, and China. Twenty-one former students are now principals of flourishing middle-class schools in Ireland, in most cases of schools founded by themselves, while a large number who were engaged as private or other teachers have since married.

"Twelve are at present head mistresses or assistant mistresses in high schools and other middle-class schools in England and the colonies. \* \* \*

"Alexandra College, Dublin, is a large day school where girls come up to study painting, music, and various other subjects that are not taught at Newnham; but of the 61 ex-students of the college who have taken the University of Ireland B. A. degree from the college, and who would therefore be of the same standing as those who have left Newnham and Girton, 41 are engaged in teaching, 6 have married, 1 is a medical doctor, 1 is assistant to Sir C. Cameron, city analyst, and the remaining 11 are apparently living at home.

"The total number of ex-students from Girton, Newnham, Somerville Hall, Holloway College, and Alexandra College, whose after careers we have mentioned above, amounts to 1,486; of these, 680 are engaged in teaching, 208 have married, 11 are doctors or preparing to be doctors and medical missionaries, 2 are nurses, 8 or 9 are in Government employment, 1 is a bookbinder, 1 is a market gardener, and 1 is a lawyer. \* \* \*

"The percentage of marriage among less highly educated women is greater than among university-trained maidens."

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## CHAPTER XIX.

### CHAUTAUQUA; A SOCIAL AND EDUCATIONAL STUDY.

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Chautauqua is, first, an institution of learning, and as such has relationships to other sister institutions of learning. Chautauqua does not attempt to cover the field of secondary instruction in America. That is provided for by our common-school system. Chautauqua does not attempt to take the place of the higher institutions of learning. That field is also occupied. But Chautauqua endeavors to bring these fields together. Chautauqua has relationships with both, and is unique in its effort to do for the higher and for the lower a work which had not been undertaken before. And, indeed, in twenty years of its history, who does not see the magnificent work in this direction which has been accomplished? But more; Chautauqua is a sociological movement, and I wonder if yet we know or understand the philosophy of this movement that has swept over this country and over other countries, a movement that is in active operation in every State, a movement the beneficent influences of which have been felt by thousands. (President William R. Harper, University of Chicago, at Chautauqua's twenty-first anniversary, August 7, 1894.)

**PART I, SOCIAL:** *The Chautauqua Assembly.—Assembly tickets.—Public improvements.—The Hotel Athenæum.—New amphitheater.—The Chautauqua salute.—Chautauqua nonsectarian.—Religious clubhouses.—How Chautauquans live.—Catholic services.—Popular amusements and recreations.—Daily life.—Rules and recreations.—Government of Chautauqua.—The citizen tax.—Food and other supplies.—Water supply.—Sewers.—Finances.*

**PART II, HISTORICAL AND EDUCATIONAL:** *The Sunday school assembly.—The general programme.—Department of instruction.—The C. L. S. C.—Chautauqua for the people.—The greater Chautauqua.—Chautauqua a living force.—The Chautauqua circle.—The four year's course.—The course for 1894-95.—How to join the C. L. S. C.—C. L. S. C. offices, buildings, and organizations.—Circulation and use of books.—Dr. J. G. Fitch on reading circles.—Chautauqua and Greek culture.—Organization and management of local circles.—A Jewish branch.—Prison work.—Lanier and the class of 1898.—Graduate courses for the C. L. S. C.—Graduate work at Portage, Wis.—Graduate membership in 1895.—Chautauqua extension and the C. L. S. C.—Opinions of the C. L. S. C.—College of liberal arts.—Specialized departments.—Statistics of the college, 1894.—The season of 1895.—Correspondence system.—Certificates and degrees.—Schools of sacred literature.—Higher criticism and statistics.—The teachers' retreat.—G. Stanley Hall.—Regents' examinations.—Special classes.—The new elocution.—School of penmanship and business.—Americanized Delsarte.—Museum of art and archæology.—Palestine Park.—The boys' club.—The girls' club.—Woman's work at Chautauqua.—Constitution of the Chautauqua Woman's Club.—The kindergarten.—Chautauqua extension lectures.—The complete Chautauqua system.—The Chautauquan.—The Assembly Herald.—Chautauqua Century Press.—Bishop Vincent; some of his views.—Opinions of Chautauqua.*

**PART III, THE CATHOLIC SUMMER SCHOOL OF AMERICA:** *Influence of Chautauqua.—A Catholic Chautauquan.—Development of the project.—Organization.—Session of 1894.—Letter from Archbishop Satolli.—The Pope's letter.—Sessions of 1895.—Future of the work.—Catholic reading circles.*

## PART I.—SOCIAL.

Von Holst, the historian, advising a German official what to see on his way home from Chicago and the World's Fair, said: "Go to Niagara and see the grandest thing in nature; then, if you want to see one of the most interesting things in the United States, turn the corner and go to Chautauqua."

This university of the people derives its name from Lake Chautauqua, so called by the Indians from its peculiar narrows. It lies in the southwestern corner of the State of New York and is 85 miles from Niagara Falls. It requires three hours by train on the Western New York and Pennsylvania Railroad to turn the corner to this beautiful upland lake among the hills. It is 20 miles long and from one-half to 2 miles wide. It lies 700 feet higher than Lake Erie, which is seen by the traveler nearly all the way down the Lake Shore from Buffalo, and is especially lovely as you climb the Chautauqua County hills from the Brocton vineyards, where Thomas Lake Harris and Laurence Oliphant tried their unfortunate experiment in Christian socialism.

Chautauqua may be reached in various ways: From Buffalo via Brocton and Mayville (at the head of the lake), either by the Western New York and Pennsylvania Railroad or by the Lake Shore parallel route. The Erie system touches at Jamestown and Lakewood, which latter is only 12 miles by steamer from Chautauqua. Thus from the East one can come by way of the Erie or New York Central or West Shore (via Buffalo); from the West by the Michigan, Erie, Lake Shore, or Nickel Plate; from Pittsburg by the Western New York and Pennsylvania, connecting at Corry, Pa., with the Pennsylvania system from Baltimore and Washington. The Chautauqua Lake Railway connects Chautauqua with Mayville and the most interesting stations around the lake as far as Jamestown. Visitors should remember that Chautauqua, N. Y., is a definite place on the lake and on the map. That address is sufficient for railroad, postal, telegraphic, and express purposes, and should not be confused with "Point Chautauqua" or "Chautauqua Lake" or "Lakewood."

Decidedly the best approach to Chautauqua is by steamer from Mayville, Lakewood, or Jamestown. There is a freight and passenger railway terminus near the grounds for certain trains from Mayville, but the boat connections are better, and the lake trip is pleasanter. Coming across from Point Chautauqua or up the lake, one finds "Chautauqua" itself a beautiful and extensive sylvan town of 500 cottages, with some conspicuous buildings, such as the Pier House and the Hotel Athenæum. At the Pier the visitor must purchase a ticket of admission to the grounds for a day, week, or month, according to the length of his proposed stay. Short-time tickets can easily be exchanged or extended if one desires to prolong his visit.

Entering the grounds through the Pier gate, where one's ticket is

punched by the keeper, the visitor finds himself upon a pleasant, well-wooded peninsula, which was originally known as "Fair Point." The charming situation, with its fine views over the lake and its breezy air, first caused this projecting point of land to be chosen for a camp meeting. Doubtless much the same motives which impel hunters and fishermen to this day on Lake Chautauqua to select breezy points of outlook for their tents influenced the first fishers of men who settled on Fair Point. It is still wonderfully pleasant, cool, healthy, and free from flies and mosquitoes.

#### THE CHAUTAUQUA ASSEMBLY.

The institutional and legal basis of Chautauqua is the so-called Chautauqua Assembly. This is a corporation of property owners who intrust their interests to a board of 24 trustees, who are elected by the landed proprietors and cottagers of Chautauqua, and who have power to fill vacancies by cooptation when a quorum of electors is not present. Meetings of the cottagers and lot owners are actually held, and if there is no quorum their provisional elections are ratified by the trustees in power. The corporation is not a joint stock company for the purpose of securing dividends or booming real estate. "By the provisions of the charter, all surplus funds must be used for the improvement and extension of the Assembly's work." (Hand Book of the Chautauqua Assembly, 1893, p. 3.)

How revenue is raised and profits are expended will be described under the heads of "Finances" and "Public improvements." The philanthropic and educational characteristics of Chautauqua are its saving qualities. The two founders of this Christian commonwealth, Chancellor John M. Vincent and President Lewis A. Miller, have never received compensation for their services. Of course, the practical managers and employees of the Assembly are reasonably paid, and so are the teachers, lecturers, and entire educational staff. Contracts are usually made out in the name of the Chautauqua Assembly by authority of the president and chancellor. The business office of the Assembly, during the season, is on the premises, and several men are constantly employed in attending to the bookkeeping and money affairs of Chautauqua. The banking is done at Mayville, on the lake. No secret is made of the financial side of Chautauqua. The annual report made to the trustees by the secretary and superintendent of the grounds is printed in newspapers like the Jamestown Journal and in pamphlet form. Copies are given at the treasurer's office to anyone who applies.

#### ASSEMBLY TICKETS.

Everybody who pays the citizen tax for one or more days receives a Chautauqua Assembly ticket for the time of his sojourn. Instructors get a free pass. This ticket or pass is punched on one side by the gate keeper when the visitor enters the grounds and on the other side when



he goes out with the intention of returning, provided his ticket has not expired. A visitor may go in and out as often as he likes, but he must go through the regular gates and not climb over the fence; otherwise he might lose the proper balance of entries and exits recorded on his card. The officials are not disposed to be fussy with persons well known to them, and will occasionally pass a lady who has forgotten her ticket. One summer the writer accidentally got in without showing his pass and managed to ride out and in on horseback almost every day without having his ticket punched. He even went to numerous ball games outside the grounds and returned without serious challenge, thus preserving a perfectly clean score for the whole season. But the gate keepers understand their business and do their duty whenever it needs to be done.

#### PUBLIC IMPROVEMENTS.

An old Chautauquan, returning in 1894 after an interval of two years, I was astonished at the improvements manifest in the forest village. I noticed that many objects once unsightly had been cleared away. Well-kept lawns and grass plots, more open spaces, and flower beds now attract the eye. A fine system of cement walks extends from the pier to the hotel, amphitheater, post office, and hall of philosophy. The streets are better graded and provided with gutters of brick or cement. Some of the street crossings are paved with brick. The grounds and buildings are lighted by electricity. A new power house has been built, containing a new engine and new pumps. Better drainage has been secured for the cottages, and better sanitary arrangements in general.

Upon inquiry of the superintendent of the grounds, Dr. W. A. Duncan, I learned that over \$89,000 worth of permanent improvements had been made in the year 1893. I found that the grounds had been considerably enlarged by what is called the new south addition, including the ball ground, costing altogether over \$4,000. All these improvements were made in a year of commercial panic and of great financial stringency. They indicate great confidence on the part of the trustees of Chautauqua, and convince the beholder that here is a remarkably successful plant, with every prospect of continued growth and usefulness. When we reflect that all profits of this summer school are to be put into further public improvements, our interest in the work is redoubled.

#### THE HOTEL ATHENÆUM.

To one landing by boat at Chautauqua perhaps the most attractive building is the Athenæum. This is a large hotel with a lofty tower and an imposing front piazza. The building stands on a grassy slope and commands one of the best general views of the lake and grounds. The Athenæum was built at a cost of \$125,000 by a joint stock company,

and one of the original investors presented one-fourth of the hotel stock to the Assembly. The hotel is conducted in the interest of Chautauqua and is an important auxiliary; it is not, however, regarded as a profitable investment. The rates are not low, but are reasonable considering the shortness of the season and the privileges enjoyed.

The Athenæum is the social center of Chautauqua. Here special and official receptions are held from the beginning to the end of the session. Here faculties and conventions meet. Here the officers, professors, and lecturers of Chautauqua are to be found. The Athenæum parlors and piazzas are a general rendezvous and a social exchange for the guests of the hotel and the best personal elements that constitute Chautauqua society. Nice families come year after year to this hotel, and occupy repeatedly the same rooms and the same tables. Bishop Vincent and his family take their meals at the Athenæum. Dr. W. R. Harper, principal of the Chautauqua system, as well as president of the University of Chicago, always gathers the professors and lecturers around one social board. Passing through Chautauqua is a continual succession of interesting people—public men, well-known writers, clergymen, and educators. Most of them stop at the Athenæum.

The office of the omnipresent secretary and superintendent of the grounds is at the hotel, and so is the general office of the Chautauqua Assembly. To this general office there daily pours a constant stream of Chautauquans who come on business matters relating to rent, cottages, lots, water rates, sewer connections, sanitation, wood, stoves, ice, and anything affecting the comfort of small proprietors or tenants. The Hotel Athenæum is thus the business as well as the social center of Chautauqua; and yet business never seems to interfere with pleasure. There is a place for both. Business is confined to corner rooms near the main entrance on the ground floor, and all the rest of the house, with its great hall and parlors, its long corridors and upper and lower piazzas, are at the service of guests.

There is a beautiful lawn sloping from the Athenæum front to the water's edge, a lawn with flower beds and great trees overgrown with creepers, and beyond lies the lovely, ever-changing lake; beyond that are peaceful blue hills and upland pastures. Dr. Richard G. Moulton, the English university extension lecturer, now permanently attached to Chicago and Chautauqua, says its lake scenery rivals that of Scotland. He and the present writer lived for a month in rooms looking out morning, afternoon, and evening upon the same delightful views of lake and shore and sky. So charming, so free, so cool and quiet was the place that I tarried for seven days after the completion of my three weeks' engagement at the college, in order to study Chautauqua and let my impressions deepen. Moreover, I wanted, in my own mind, to contrast sharply the social life of Chautauqua with that of certain Canadian monasteries which I was about to visit. The way is not long in the summer season from a modern hotel to a mediæval

hospice, or from a university club to a community of monks! These institutions are historic kinsmen.

#### NEW AMPHITHEATER.

The new amphitheater was completed at a cost of \$26,478 in the early summer of 1893, in time for assembly use. This solidly built but airy structure occupies the site of the old amphitheater, and is of the same width, but extends 13 feet farther down the ravine toward the lake and 30 feet farther up the hill. The new building is 174 feet long and 168 feet wide. Like a Greek theater, it is built in semicircular form into the side of a hill, but, unlike a Greek theater, it has a good roof—a very necessary thing in our climate. The roof is curved in the form of a turtle's back, is 34 feet above the pit of the amphitheater, and is supported by trusses requiring only four rows of iron columns, which are so arranged on outer and inner half circles as to give a clear span of 100 feet in the center of the amphitheater. The rows of seats, with wood flooring, rise gradually from the pit, so that the outer circle is on a level with the top of the hill into which the horseshoe structure is built. A person standing anywhere upon the sidewalk, along the outer edge of the amphitheater, can take in at one glance the whole interior scene or arrangement.

There below is the speaker's platform projecting far out into the pit. Behind the platform and 9 feet higher up is the singers' gallery, accommodating 400, rising tier on tier, even higher than the ceiling of the amphitheater and having clearstory windows on either side for overhead light. The entrances into the amphitheater are various, but chiefly by aisles roughly concreted and radiating from the pit, like spokes from a hub. The singers' gallery is accessible from both sides through gates and also from offices below the stage, whence singers and lecturers emerge with the director or manager. The amphitheater is lighted by electricity. The effect of the fringe or festoon of incandescent lights around the outer circle is very pleasing at night, but not so beautiful as is the light of day shining into that great amphitheater over the heads of 6,000 people. This open-air effect is heightened by the sight of a border of green trees just beyond the outer rim of seats. These trees wave and rustle with every breeze and afford a beautiful accompaniment to the exercises inside the building.

It is generally agreed among visitors that Chautauqua has no finer sight than her Sunday morning service in the amphitheater. There is something very uplifting in the grand chorus of voices always singing at the opening of the exercises:

Early in the morning  
Our song shall rise to Thee.

There is a certain form of responsive readings accompanying every morning service, and when conducted by Bishop Vincent it is particularly impressive. Prof. J. P. Mahaffy, of Trinity College, Dublin, thus



speaks of Dr. Vincent and "the great Sunday morning service," which the professor himself attended: "Though the majority—the great majority—were what we call Dissenters, whose devotions have a somewhat different type from those of the Church of England, he [Bishop Vincent] had so ordered his liturgy that every word of it was not only in harmony with his own kindred branches of the Christian Church, but with mine and with those of every reasonable Episcopalian. I can honestly say it was the most impressive service I ever attended." The late Professor Freeman would have called it a religious folk-mote.

There is great catholicity shown at Chautauqua in the choice of Sunday preachers. Phillips Brooks used gladly to accept invitations to preach there, and last summer Bishop Coxe was among the succession of Protestant clergymen—Methodists, Baptists, Congregationalists, and Presbyterians—who appeared upon the Chautauqua platform. Such liberals as Dr. Lyman Abbott and Dr. Edward Everett Hale are much liked by Chautauqua congregations, which are at once orthodox and enlightened. Religion is a very vital and very fundamental element in the educational work at Chautauqua. Any passing visitor will quickly perceive that moral and religious forces are the foundation and stay of the whole complex of institutions.

The song service at 7.30 Sunday nights is much enjoyed by the people, but on week days the amphitheater is used for a great variety of purposes. There are often religious or musical exercises in the morning hours; an educational lecture at 11 o'clock; a popular address at 2.30 p. m., and a concert, a dramatic reading, or a stereopticon exhibition in the evening. Almost everybody goes to the amphitheater at some hour of the day, according as one has leisure or inclination, but the largest audiences are usually at night, when people are free and disposed to be entertained by music or illustrated lectures.

It is no easy task to hold an amphitheater audience. Chautauquans are so accustomed to good speakers and to things really interesting or edifying that a dull lecturer will find his audience quietly stealing away from him. Popular taste is generally correct as to what is worth hearing or seeing. Unprofitable reformers, demagogues, and bores are quickly found out by the people, to the great advantage of the management, which never engages manifest failures for a second season.

In the opinion of experts, the amphitheater is an easy one to speak in. Dr. Edward Everett Hale is said to be a great admirer of the acoustic properties of the new building. A speaker with a clear, distinct voice is easily heard throughout the vast interior space, even when he talks in a perfectly natural way, without any striving for oratorical effect. Dr. Hale ascribes the acoustic excellence of the amphitheater partly to its having no extended system of floors. He says: "Mother Earth is a better sound reflector than boards." But there is enough flooring for all practical and æsthetic purposes. The whole construction of the new amphitheater was designed for good acoustic effects.



## THE CHAUTAUQUA SALUTE.

There is a singularly striking custom which one sees at rare intervals in the great amphitheater. When the presiding officer wishes to show special honor to some distinguished lecturer or visitor from across the sea, he proposes to the audience to give the honored guest upon the platform the "Chautauqua salute." Immediately a thousand white handkerchiefs are waved in the air, and the vast interior slope of the amphitheater seems all alive with color and motion. The effect is picturesque and pleasing in the extreme. It appeals only to the eye, and yet it surpasses every kind of noisy applause.

The natural origin of this graceful custom is very interesting. Chancellor Vincent thus explains it: In the early days of the assembly, when the meetings were held in the auditorium in Miller Park, Professor Green, a deaf-mute, of Bellevue, Ontario, was giving a pantomimic lecture one afternoon, in which he portrayed incidents in the life of Christ. The audience applauded vigorously. Chancellor Vincent, realizing that Professor Green, being deaf, could not hear the applause, suggested the waving of the handkerchief, which was done with great enthusiasm. For the first time Chautauquans beheld the effect which they have seen so often since, which resembles the blooming of thousands of white lilies. This salute is not only given at the various local Chautauquas, but at gatherings which have no connection with Chautauqua, and is known everywhere as the "Chautauqua salute."

## CHAUTAUQUA NONSECTARIAN.

Chautauqua is not denominational. It is not under the control of the Methodist Church, or of any one religious body; but Chautauqua is profoundly religious. Eliminate that element, and its present earnestness would be gone. Chautauqua "is thoroughly nonsectarian, and members of all churches meet there on a common level of mutual respect and esteem. Religious differences are not emphasized by public discussions, but are for the most part ignored. Every Sunday the sermon is preached by a man well known in his own church, and thus in a single summer a half dozen different denominations are represented. \* \* \* Prof. J. P. Mahaffy, of Dublin, when he visited the assembly, said he expected to see 'an ecclesiastical bear garden, but found instead a happy family.'"

## RELIGIOUS CLUBHOUSES.

Thomas Jefferson first conceived the excellent idea of surrounding a nonsectarian university with different theological seminaries, each supported by its own constituency and all profiting by friendly relations to the central institution. Something of this relation appears in the religious and social life of Chautauqua. Some of the leading denominations have erected church clubhouses, containing attractive recep-

tion and reading rooms, with various church papers and other periodicals which clergymen and laymen often wish to consult. Here are quiet rooms where one can write letters or meet friends. Receptions, reunions, and religious meetings are held in the comfortable parlors of these clubhouses, which are nicely furnished and are a source of pardonable pride to the different denominational subscribers or founders who erected them. All day long you will see people sitting on their club piazzas, amid flowering plants, and evidently rejoicing under their own vines and fig trees, as did people at the World's Fair in their own State buildings, or as do college boys upon the front porches of their fraternity houses. There is a commendable comity and generosity shown in the social and public use of these different denominational buildings, which are called by such names as "Presbyterian House," "Methodist Episcopal House," "Congregational House," etc. Conventions of teachers and specialists of one sort or another are allowed to hold meetings and conferences in the parlors of these modern religious houses, which afford in some respects a striking contrast to mediæval monasteries and to the old-time exclusiveness of church assembly rooms.

#### CATHOLIC SERVICES.

In the summer of 1895 a new feature was added to the religious life at Chautauqua. For a long time a real need and actual demand had existed for the occasional services of a Catholic priest. Some of the students were Catholics. In Chautauqua households Catholic domestics have long been employed. Various religious denominations have been encouraged to establish their own places of social worship at Chautauqua, and there was no good reason for excluding Catholics, who have long been appreciative students of the Chautauqua system. Priests have occasionally visited the place, and have always found a welcome.

Bishop Vincent invited the Catholic bishop at Buffalo to send a priest to Chautauqua to conduct services regularly once a week. This was done, and at each service a number of Protestants were present. Indeed, there was nothing in the character of the services that could possibly have offended any reverent Christian. But it was certainly a surprising evidence of the growing catholicity of Chautauqua to find in the *Assembly Herald* for Monday, August 5, 1895, the following item:

"At 8 o'clock yesterday morning in College Hall about 50 persons assembled in attendance upon the first Catholic Church service held at Chautauqua. Low mass was celebrated, the service being conducted by the Rev. Father E. Gibbons, of Buffalo, N. Y. Among those present were several Protestants. Mass will be celebrated every Sunday morning during the season at the same hour."

College Hall has been used on week-day mornings for chapel exercises preliminary to the college class work, which begins at 8 o'clock.

Ministers, professors, and other laymen of various Protestant denominations and different shades of belief have officiated on these occasions. Chautauquans have thus become accustomed to enlightened views of religious worship and of all spiritual gifts. "For the body is not one member, but many," said St. Paul. "Are all apostles? Are all prophets? Are all teachers?" (I Cor., xii, 14, 29.) It is a manifest tendency of our time to give students the benefit of lay preaching as well as clerical, and to employ college preachers of different denominations. Harvard, Cornell, and Chicago universities are conspicuous examples. But Chautauqua has excelled them all in true catholicity, for it has begun to bring Catholicism and Protestantism together upon common educational ground, where they must finally meet, whether in school or university, and endeavor to agree in the spirit of St. Augustine, who sought, "In essentials, unity; in nonessentials, liberty; in all things, charity."

The time may come when there will be a Catholic building at Chautauqua; but if there should be, it would probably be so broadly catholic in character that any Protestant denomination could go inside and, if desirable, hold a service. Already at Chautauqua there is the Chapel of the Good Shepherd, owned by Episcopalians, which has never been formally consecrated or set apart for a specific mode of religious worship. The building may be used for educational or social purposes, or for religious services conducted according to other forms than the Episcopal. A historical student is reminded of those good old times when English churches were used for town and parish meetings, and when Italian cathedrals were employed for public lectures and addresses. In the old university town of Heidelberg, Germany, there is a beautiful Gothic church, which has been divided by a partition across the nave. On one side Protestants worship; on the other side Catholics. But the grand old church is one and the same church in spite of its partitions.

#### HOW CHAUTAUQUANS LIVE.

The majority of Chautauquans board in the cottages, some of which are large and capable of accommodating many guests. The cost of living in a cottage is from \$5 to \$10 a week. At the Athenæum, the only hotel, the cost is from \$12 to \$25 a week. Many people rent cottages according to their means, and live in privacy and comfort. There are various gradations in the Chautauqua mode of life, from the primitive tent and light housekeeping up to a well-ordered summer house with family servants. Tents are now very rare, and are, indeed, rather distinguished by their rarity.

The territorial domain of Chautauqua comprises over 200 acres. The northern portion is divided by numerous "avenues" into blocks of varying size, containing each a number of cottage lots. Upon more than 500 of these lots cottages have actually been built, and many lots have



been selected for building purposes. The usual size of a lot is 40 to 50 feet front. The prices range from \$150 to \$500. It is not unusual for purchasers to take two adjoining lots and build in the center.

Lots are not actually sold, but are leased for ninety-nine years. Tenants agree to conform to the by-laws of the assembly, to submit all buildings for approval by local authority, to use the property for private and not for business purposes, and not to sublet or transfer or lease land or cut down trees without permission. Thus communal rights remain paramount. The Chautauqua Assembly is the sovereign proprietor of the premises. Assembly authority is, however, asserted solely in the interest of the community. The proceeds arising from the sale of lots are devoted to the further improvement of the town. Plans for building, according to the means and taste of the tenant, are furnished free of charge by the assembly architect.

Contracts for building are made with private parties. Simple cottages with two ground-floor rooms, a porch, and two chambers are built for \$400. A cottage with a porch, parlor, dining room, kitchen, three chambers with closets, and an upper balcony costs about \$700. A house with a veranda, hall, reception room, parlor, dining room, kitchen, pantry, four chambers with closets, a bath room, and a balcony can be built for \$1,800. A very charming combination is a simple cottage with a front pavilion of canvas and a wooden platform for a piazza. Bishop Vincent's family and his son's family live in such tent houses, which are the most tasteful and attractive upon the Chautauqua grounds, and combine the advantages of outdoor and indoor life in summer. On fine, warm days people live on their porches and balconies. At night and in rainy weather they withdraw into their inner rooms, where open fires are sometimes a great comfort and an unfailing source of good cheer.

Sensible Americans are returning in the summer season to lives of greater ease, simplicity, and economy. Chautauqua cottages are more comfortable and more civilized than some costly camps in the back woods, or than noisy, pent-up lodgings in crowded summer hotels. The development of this really simple life, this civilized mode of returning to nature, has only fairly begun in America. We shall see more and more of it, for as the poet Sill said in his Field Notes:

Life is a game the soul can play  
With fewer pieces than men say.

#### POPULAR AMUSEMENTS AND RECREATION.

There are many varieties of amusement and recreation at Chautauqua. Best of all is the healthful open-air life. People spend their leisure outdoors, on lawns and piazzas, in the parks and groves, in friendly walks and talks. Most of the public or popular lectures are given to open-air assemblies, under roof indeed, but in buildings open to the breezes and to the light of day. There are few things at Chau-



tautauqua more beautiful than the sight of waving trees around the hall of philosophy in the grove. Something of the old Greek spirit has been consciously or unconsciously revived in the free, peripatetic, musical, athletic, out-of-door life of young people at Chautauqua.

There is a good gymnasium by the lakeside. There, at nearly all hours of the day, classes and individuals are joyously engaged in physical training under the direction of Dr. William G. Anderson, director of the Yale University gymnasium. Ever since Mr. Stagg was here Yale men have been coaching students at Chautauqua in athletic exercises, in baseball, rowing, and swimming. Match games are played by select Chautauqua nines, who usually beat the best teams from the whole countryside. At these games and at the boat races and swimming matches the entire juvenile population and many of the older people congregate and shout for Chautauqua and their favorites. Gymnastic exhibitions in the amphitheater attract great crowds, as in every college community. There is no belief in asceticism at Chautauqua. The mortifying and lacerating of the human body are no longer approved in the enlightened Christian world. A man's body is now regarded as his best friend and not as his worst enemy. By proper care and training the human form divine can be made, instead of an abode for demons of passion and disease, a living temple for the mind and soul.

It would not be easy to find, in any of our college communities, such a fine place for an athletic exhibition under roof as the Chautauqua amphitheater affords when half the benches have been removed from the arena. In the midst of assembled thousands of spectators, comfortably seated on benches, rising tier above tier, before such a cloud of witnesses the modern athlete might well imagine that the Græco-Roman games had been revived with their original environment. But what a vast difference in the spirit and character of the exercises! Instead of abnormally developed gladiators and those fierce and bloody contests of old Roman days we here behold symmetrically developed modern men engaged with generous rivalry in graceful gymnastic and athletic exercises which subserve not ignoble, cruel instincts, but the rational purposes of health and pleasure.

Tennis courts abound at Chautauqua, and are filled with eager players all day long. There is a bicycle school where old and young are taught the modern art of swift and easy locomotion. Horseback riding and quiet driving content the more conservative classes. Perhaps the most popular of all amusements is boating. Every afternoon and evening dozens of light boats may be seen gliding over the peaceful surface of the lake with merry crews of all ages. Sailboats are in frequent use, but are not so popular. Many are the excursions by steamer up and down the lake, and many the barge parties and pleasant evening picnics at cool inlets along the shore.

Occasionally there are beautiful illuminations of the grounds and of the hotel piazzas. The Fourth of July, the first Tuesday evening in August, called "Old First Night"<sup>1</sup> (when Chautauqua used to open), and Recognition Day, the fourth Wednesday in August (when Chautauqua graduates receive their diplomas or certificates), are usually celebrated at night with fireworks. The "Feast of Lanterns" and the "Illuminated Fleet" are always popular spectacles. Steamers, yachts, sailboats, and other craft are sometimes gorgeously arrayed with festoons of various colored lanterns, while brilliantly colored fires float upon the lake, and rockets and fire balloons add excitement to the charming scene. Prizes are awarded to the lake craft making the best display. "Athenian watch fires," a favorite institution on gala nights, are brilliant but well-regulated flames of gas fiercely burning, high in the air, upon great iron torches.

The old-fashioned spelling school has survived at Chautauqua. Prizes are announced in advance, and a large number of contestants come forward in the amphitheater and take benches facing a sympathetic Chautauqua audience. The spellers are grouped by States, and are usually arranged on two sides—for example, New York and the Middle States against the world. The director of the department of elocution gives out the words, which are carefully selected in advance. Rare or catch words are avoided, in order to make the contest really profitable and to prolong the excitement. Judges sit upon the platform with Webster's, Worcester's, and the Century dictionaries, to decide doubtful cases when appealed. Any way of spelling that has good authority is allowed. It is surprising to see the manifest pleasure of the audience at the continued success of certain boys, girls, or young ladies, or of favorite representatives of certain States or sections of country. Even more interesting and quite as profitable are the pronunciation matches, conducted upon the same general plan.

The music and the singing at Chautauqua are delightful. In the morning hours, from the upper piazza of the hotel, the writer used to hear the great chorus class of several hundred voices in training, under a good leader, for some evening performance or for the next Sunday's services. Public concerts, vocal and instrumental, are frequently given in the amphitheater, attracting thousands of delighted hearers. Violin players, professional singers, vocal soloists, quartets, and college glee clubs are invited to Chautauqua every season. Organ and orchestral concerts and piano recitals are well attended. Toward evening the band plays on the upper piazza at the Pier House, and hundreds of people enjoy this music in the open air. Some stroll about the grove and shady walks on Fair Point; some sit on the grassy slopes of "Mount Carmel" and other hills of little "Palestine," on Chautauqua's shore, while others row out upon the lake and hear the music across the water. It is all very pleasant to hear and contemplate if one has

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<sup>1</sup> Chautauqua now begins on the last of June or first of July.

learned to like his fellow-men and has discovered how much he himself resembles them.

It is best to rise early at Chautauqua, for the morning there is the best part of the day for a quiet stroll about the hotel lawn and along the lake front. You of course buy an Assembly Herald from the first small boy you meet and read it at breakfast, where the local gossip and the reports of lectures generally create some amusement. In the Herald, or on bulletins conspicuously posted in the hotel and about the grounds, you read the programme for the day. Experienced Chautauquans mentally resolve what they will not hear and go at once about their morning's work. Everybody who is really accomplishing anything at Chautauqua has entered some particular class or department, and has definite duties. My class in history met at the college at 8.30 a. m. An hour later I was free, and could do what I liked for the rest of the day. Usually I read or wrote throughout the morning; took a walk before dinner and a nap afterwards; perhaps an afternoon lecture at 4 o'clock; a swim at 5; supper at 6; a drive, stroll, or quiet row in a boat with pleasant company in the early evening; and later a look at, and perhaps a seat in, the amphitheater, where with friends one is easily entertained by a popular lecture, a concert, a dramatic reading, or a stereopticon exhibition. Such amusements rarely last later than 9.30, when people return to their cottages or to the hotel for further talk on piazzas until the chimes ring at 10 o'clock. Soon afterwards everybody is expected to retire or be quiet. All persons in rowboats must come in from the lake before that hour. Now and then a special dispensation is made in favor of some merry launch party or belated company of guests. The police perambulate the grounds after 10.30, and do not encourage others to do so. Dr. Moulton, the extension lecturer, after working late one night, thought he would take a promenade around the grounds. He was halted by a policeman and had to explain himself. Of course there was no further objection in his case, but the law-abiding Englishman gave up strolling outdoors at midnight and began to walk in measured paces along the upper piazza of the hotel; but that nightly tramping disturbed the sleep of the guests, and the Englishman had to conform to the established rules, which are all very good and sensible.

#### RULES AND REGULATIONS.

The following is the substance of the by-laws governing the village of Chautauqua, which is a modern commune under as strict and as sensible communal regulations as were ever the parishes of Old or New England:

1. All who become residents of Chautauqua, for however brief a time, must pay the fee or citizen tax fixed by the trustees, according to the length of the stay.
2. All who refuse to conform to the rules or to pay the fee may be



excluded from the Chautauqua limits, and they can not reenter without the risk of criminal prosecution.

3. No intoxicating liquors shall be sold or permitted to pass the town gates.

4. Card playing, games of chance, and dancing are prohibited.

5. Canvassing, distributing advertisements, peddling, etc., are forbidden.

6. No unnecessarily loud talking or the making of any noise is permitted between 10 p. m. and 7 a m.

7. Building and other work of a disturbing or unsightly nature is not permitted from July 1 to the close of the season.

8. Dogs are not permitted to run at large.

9. On Sunday pleasure driving, boating, bathing, fishing, and games of all kinds are prohibited. No one is allowed to enter the grounds except in special cases (at the road gate only), when a permit is necessary. Persons may leave the grounds Sunday afternoon by the road gate after 4 o'clock. No boats call at the Chautauqua pier on Sunday.

10. No meetings, readings, concerts, classes, or other public gatherings are permitted in cottages or elsewhere other than those arranged for by the department of instruction. No business of any kind can be carried on without a license from the assembly.

All of these rules and regulations have approved themselves by a thorough testing during an experience of twenty years. A brief sojourn at Chautauqua will demonstrate their good sense to an open-minded observer. In particular will he commend the laws against book agents, posters, peddlers, brawlers, stray dogs, Sunday excursionists, and other disturbers of the public peace. It is generally agreed that a wise conservatism with reference to dancing and card playing is best for Chautauqua, for its managers and patrons do not wish to see the place converted into a summer resort for people who care merely for amusement. Nor would liquor selling improve the character or patronage of this educational and social commune. People who care for these things can be accommodated elsewhere. The lake is surrounded by fashionable hotels.

#### GOVERNMENT OF CHAUTAUQUA.

The commonwealth of Chautauqua is under a benevolent one-man power, that of the superintendent of the grounds. He is appointed by the 24 trustees of the Chautauqua Assembly, whom he serves also as secretary. All the ordinary functions of good local government are performed under Dr. Duncan's efficient direction. I used to address him as "Mr. Mayor," and he always responded to this title. He does away with all occasion for aldermen and a common council, and combines in his person all the necessary boards and commissions, such as public works, fire, water, health, and police. The board of education is under special management. Under his authority taxes, percent-



ages, water rates, and other local charges are collected. By his orders the grounds are illuminated; the streets<sup>1</sup> are repaired, swept, and sprinkled; sanitary rules are carried out by all the cottagers; the water supply is regulated; the fire department kept in training; the mounted police sent hither and yon, on horseback or on bicycles; and gate keepers are instructed as to special duties. By his watchfulness and penetration Chautauqua is kept free from dangerous and suspicious characters. He sees that the rules and regulations of the little community are carried out and that all things are done decently and in order. He acts as marshal on public occasions, like Recognition Day. By his good government and practical management during the past ten years Chautauqua has become a business success and a model municipality.

#### THE CITIZEN TAX.

Taxation is the economic basis of civic society. Great privileges are enjoyed by all citizens of Chautauqua, and it is quite right that some payment should be exacted. Every visitor who enters the gates for one day in July is charged 25 cents. For this small fee he can hear all the public lectures, concerts, and entertainments that are advertised for that day. He can stay a week for \$1; a month for \$2.50. During the month of August the tax is higher, the attractions are greater, and so is the crowd. The daily tariff now becomes 40 cents, the weekly tariff is \$2, and the monthly \$3. But one can buy a ticket for the entire season for \$5. These charges do not admit the visitor to any branch of class instruction, but only to the public courses and exercises that are posted from day to day on the printed bulletins.

#### FOOD AND OTHER SUPPLIES.

Chautauqua is fed from local markets. The neighboring farmers bring their milk, butter, cheese, fruit, and vegetables through the village gates and occupy convenient stalls where the cottagers come to make purchases, exactly as townspeople go to market. There are local butchers, bakers, grocers, confectioners, and dealers in all desirable commodities for household use. The meat supply is brought from Chicago. During the July strike, when connections with the West were broken, Chautauqua had no fear of famine, for she could get a sufficient meat supply from her own neighborhood.

Besides her own markets and provision stores, Chautauqua has a good bookstore, a drug store, soda fountains, various bazaars, a jeweler, an excellent optician, doctors, lawyers, ministers of all denominations, a millinery shop, a ladies' tailor, a gentlemen's furnishing store, a livery stable, public and private baths, and a barber shop.

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<sup>1</sup> The street cleaning of Chautauqua is especially well managed. Every Saturday afternoon all the avenues and streets are thoroughly cleaned. Men with shovels and carts make the rounds of the place and scrape up all dirt and litter. Not a scrap of waste paper is left in sight.

## WATER SUPPLY.

The village of Chautauqua, like the great city of Chicago, gets a permanent water supply from an adjoining lake; but, unlike the metropolis of the West, does not poison its own well. An 8-inch suction pipe is extended 600 feet out into Lake Chautauqua, which is fed from pure streams 700 feet above the level of Lake Erie. The entrance to this suction pipe is 40 feet below the surface of the water, and the supply is drawn in and forced some distance upward into a high service reservoir, from which the hotel and cottages are supplied by pipes. The water is pure and of excellent quality. No sickness has ever been occasioned by its use.

The reservoir lies among the hills back of the town, and when full is about 900 feet long, 300 feet wide in the broadest place, and about 22 feet deep. Its estimated capacity is 10,000,000 gallons. This reservoir is filled for ten months in the year by a little stream which runs through the center of it, but in the summer months the brook supply is increased by water forced from the lake by steam pumps, as above described. There is an upper dam by means of which, if necessary, the surface and storm water can be entirely excluded from the lower reservoir and carried around it by a waste pipe. Thus, if desirable, the reservoir can be entirely filled from the lake, while a good supply of water remains in the upper pond, ready for use at any moment in case of fire. These gravity waterworks have a head 175 feet high. Connections with the water system are made at the cottage holder's expense. The annual charge for the use of water and for sewer connections is \$10.

## SEWERS.

There are few towns or cities in this country so well provided with means for good drainage as is the academic village of Chautauqua. During the year 1893 there was introduced an extensive system of sewers  $4\frac{1}{2}$  miles long, with disposal works costing nearly \$41,000. Most towns are content with an inadequate system of drains and sewers emptying into some adjoining river or body of water, thus polluting the whole vicinity and perhaps the water supply of other towns. Chautauqua has adopted the English or Coventry process of treating chemically, with sulphate of alumina and milk of lime, the sewage as it flows out from the main. By means of settling vats and filter presses the whole mass, to the extent of 300,000 gallons daily, can be rendered inoffensive. It is separated into liquid and solid portions, the first running off as clear and odorless water, and the second appearing in the form of dry, hard cakes suited for removal and use in fertilizing land. The same remarkable results that the modern traveler sees accomplished for the sewage of the great cities of Europe he may see upon a smaller scale at Chautauqua. The application of chemistry and the filter press to the treatment of sewage is comparatively new in America, and some

of our city engineers and boards of health might profitably take a summer course of instruction at Chautauqua with object lessons by the lake.

#### FINANCES.

The ways and means of supporting such a vast and complex institution as the summer school at Chautauqua are interesting objects of inquiry. From the annual report of the secretary and superintendent of the grounds, presented at a meeting of the trustees held in Buffalo, N. Y., January 30, 1894, some interesting information may be derived. Although the year of the Columbian Exposition at Chicago and of the commercial panic was not favorable to Chautauqua, she enjoyed a total revenue of over \$93,000. Of this amount, over \$32,000 came from the sale of tickets of entrance to the grounds or for temporary sojourn, nearly \$16,000 were so-called "C. L. S. C. percentages," nearly \$8,000 from Chautauqua privileges, and nearly \$3,000 from other "percentages." The chief sources of income are, then, gate money, the profits of certain publications, local privileges, and local taxation. Ten per cent is collected from all persons who enjoy any money-making rights or economic privileges at Chautauqua. Every boarding-house keeper, storekeeper, market man, milkman, or ice-cream and pop-corn vender upon the premises pays his 10 per cent. There is a regular office where these percentages are paid and where a cash rebate of 2 per cent is allowed, thus securing prompt payments.

The expenses for the general programme of the Chautauqua Assembly for 1893 were nearly \$25,000. The cost of running the college of liberal arts was over \$20,000, of which cost not one-fiftieth was covered by actual income from tuition. The general expenses of the Assembly for 1893 were over \$24,000, not including legal expenses, interest, and repairs.

Chautauqua has never been a money-making enterprise for the trustees. Indeed, it has always been more or less under a burden of debt until December 1, 1892, when it was virtually free. During the year of the Chicago Exposition the income was less than the expenditure by nearly \$3,000, but the trustees of Chautauqua had such confidence in the future that they issued bonds to the amount of nearly \$60,000 to pay for needed public improvements.

The year 1893 was, however, not a good year financially. The previous year was better. It appears from Secretary Duncan's report, published in the Jamestown Journal January 24, 1893, that the total income of the Chautauqua Assembly for that year was over \$120,000. The Chautauqua literary and scientific circles brought in nearly \$17,000 and the college of liberal arts nearly \$4,000. Altogether the revenue for 1892 was \$141,803.89. The sale of tickets that year yielded \$56,396; C. L. S. C. percentages, \$37,783; Chautauqua privileges, \$8,038; percentages, \$5,099; sale of lots, \$6,025; sundries, \$6,932.

The assembly outlay in 1892 for the general programme was \$26,611;



for the college, \$31,716; for incidental and legal expenses, \$4,338; for repairs, \$4,384; for general expenses, \$23,206; for interest, \$1,367. That year there was a profit of \$29,288, but it was nearly all expended by direction of the trustees as follows: For improvements, \$14,342; for the purchase of property, \$3,016; for real estate, \$1,877; for payment of Chautauqua debt, \$10,000. Thus, in one year permanent improvements and additions of property were made to the amount of nearly \$20,000, and the existing debt was entirely wiped out, with the exception of a mortgage of \$3,500 on a tract of land recently purchased.

Secretary Duncan's report for 1892 shows that during the nine years of his incumbency a total indebtedness of \$90,000 had been liquidated, with \$27,480 for interest, making the total payments for debts during that time \$117,480. He expended for improvements during those nine years the sum of \$183,323.

Recent seasons at Chautauqua have been attended with financial success, and we may expect to see the present bonded indebtedness extinguished at an early date and new improvements inaugurated. A summer assembly, with an income of \$120,000 and with landed property rapidly increasing in value, may look forward with a reasonable hope to a prosperous future. There are many colleges and some universities that can not show annual revenues equal to those of Chautauqua.

## PART II.—HISTORICAL AND EDUCATIONAL.

American summer schools of the Chautauqua type are historical evolutions of the Southern camp meeting. This latter institution was perhaps first suggested by the open-air life of hunters' camps, but its first actual appearance was in 1799, on the banks of the Red River in Kentucky. This first camp meeting was made necessary by a remarkable overflow of religious enthusiasm resulting from the evangelistic work of two Scotch-Irish brothers named McGee, one a Presbyterian and the other a Methodist, supported by the Rev. Mr. McGreedy, a local Presbyterian pastor, whose church proved too small to hold the gathering multitudes. Kentucky hunters and frontiersmen immediately mastered the situation by reverting to bivouacs and open-air meetings, such as Daniel Boone held under the great elm tree at Boonesboro. And thus on Red River a religious folk-mote assembled day after day in the heart of the forest. In so doing these pioneers were unconsciously loyal to the religious as well as the democratic instincts of their Germanic forefathers.

Popular education sprang from religious democracy in New England in the seventeenth century. A similar phenomenon greets the world in this nineteenth century educational evolution of the "general camp meeting." It should be remembered that those open-air religious assemblies were called general because they embraced various denominations, not alone Methodists, but also Baptists and Presbyterians.



Like the first "great and general court" of Massachusetts, the "general camp meeting" was a democratic folk-mote; in fact, more democratic than any popular assembly in early New England outside of Plymouth and Rhode Island. While recognizing the larger toleration and the widening circles of popular education now represented in all parts of this country, we would call attention to that peculiar educational democracy which has arisen from the Ohio Valley, where the currents of Northern and Southern religious and intellectual life first met and mingled.

The idea of utilizing the camp meeting for educational purposes, the thought of a "camp-meeting institute," where methods of teaching should be cultivated, was suggested by Silas Farmer, the antiquary and historian, of Detroit, Mich., in the *Sunday School Journal*, as early as April, 1870; but a similar and perhaps larger idea was early cherished by Lewis Miller, of Akron, Ohio, the inventor of the Buckeye mower, which has revolutionized the farming machinery of America. This practically minded, large-hearted, and wealthy man, who all his life had been actively engaged in Sunday-school work, and who was one of the earliest and staunchest promoters of mechanical and agricultural education in Ohio, joined hands with Dr. (now Bishop) John H. Vincent for the improvement of Sunday-school teaching by a generous alliance with science and literature. Dr. Vincent, for many years a leader in American Sunday-school work, believed most strongly in the increase of "week-day power" by the intimate association of secular and religious learning. He believed in the harmony of religion with everyday life. In the summer of 1873 the two men, Mr. Miller and Dr. Vincent, visited the Fourth Erie conference camp meeting<sup>1</sup> of the Methodist Episcopal Church, held at Fair Point, on Lake Chautauqua, in southwestern New York. They chose that Fair Point for a local establishment of "The Chautauqua Sunday-School Assembly."

#### THE SUNDAY-SCHOOL ASSEMBLY.

As an educational institution Chautauqua began in 1873 as a Sunday-school assembly for the training of teachers according to the normal methods. The next year it was determined to organize a permanent assembly for the encouragement of Sunday-school and allied work. A charter was secured from the State of New York. Twenty-four trustees or directors from various parts of the country were named. They were substantial men, sincerely interested in the proposed work. Prominent among them was Mr. Lewis Miller, who became the president, and the late Francis H. Root, of Buffalo. The latter was "one of the few men who attended every meeting of the board. In the days when it looked

<sup>1</sup> The Chautauqua Assembly at Ottawa, Kans., still presents the camp-meeting type as did once the original Chautauqua. At Ottawa, where the assembly is held in a public park granted by the city, most of the people in attendance live in tents and fully 1,500 sleep on the ground. (*Chautauqua Assembly Herald*, August 9, 1894.)

dark for Chautauqua he was one of the few who put their names to the paper that gave us means, and who said this institution must live." (Chautauqua Assembly Herald, August 21, 1893.) He was one of the eight men who erected the Athenæum. He gave his stock to the assembly, and remained to the last one of its staunchest supporters.

Students at the college and members of the C. L. S. C. and of the various classes sometimes forget the real founders of Chautauqua and the original character of its work. At a reunion of the Normal Alumni Association, August 17, 1893, Dr. J. L. Hurlbut said:

"In the earlier days of the assembly the normal class was the great institution of Chautauqua, and was attended by many hundreds of people. At one examination at the close of the course there were 300 persons who took the examinations required. \* \* \* Now that Chautauqua assumes the wider work of general education, the normal course does not stand in quite the same prominence, yet the study of the Bible, with which Chautauqua began, is as thorough and as earnest as ever—more thorough and more earnest than ever. More people are studying the Bible now at Chautauqua than ever in those early days, and the normal classes of to-day, though not so large as they were when there were fewer interests at Chautauqua, are still large and still full of enthusiasm."

At the same reunion Dr. B. T. Vincent said:

"You members of the C. L. S. C. are outcomes of the normal department. The normal class is peculiarly the one idea of the old Chautauqua. Everything else that has grown up out of the Chautauqua movement has grown up out of this root idea, to make the people intelligent about the word of God and the works of God."

This characterization is worthy of historic attention, for it reveals the genesis of the whole Chautauqua system—Bible study, the application of normal methods to Sunday-school work, the popularization of these methods, the development of the international system of Sunday-school lessons, the infusion of a religious spirit into week-day work, the growth of the literary and scientific circle, and the final evolution of the college of liberal arts. It is interesting to notice not only the development but the vigorous survival at Chautauqua of the original normal and Sunday-school classes in their varied forms—the assembly Sunday school, often conducted in the amphitheater Sunday afternoon by its first president, Mr. Lewis Miller; the primary department, guided by Mrs. J. W. Ford,<sup>1</sup> at 9 a. m. in Kellogg Hall (a memorial building devoted to children's education, the kindergarten, etc.); the Sunday school proper, at 9 a. m., under the direction of Dr. W. A. Duncan, secretary of the assembly, in the so-called "Temple"; the young people's Bible class, often led at the same hour in the hall of

<sup>1</sup> Mrs. Ford, of St. Louis, regards the primary and religious training of little children as the most important part of the work at Chautauqua, and regrets that people think so little about it.

philosophy by Mr. A. M. Martin, one of the secretaries of the C. L. S. C.; the Society of Christian Ethics; the popular morning class for Bible study in the amphitheater, where Dr. William R. Harper, the principal of Chautauqua, attracts vast audiences by his enlightened exposition of the Old Testament, and, lastly, the flourishing week-day schools of sacred literature, where the Bible is studied in the original Hebrew and Greek and also in its English form, together with biblical history, under the direction of Principal Harper, aided by a staff of expert biblical teachers, like Profs. George S. Burroughs, D. A. McClenahan, W. W. Moore, Charles Horswell, and R. G. Moulton.

"The Sunday-school normal class for the training of Sunday-school teachers, both in biblical knowledge and in pedagogical principles," still lives and thrives under the able and daily direction of Dr. J. L. Hurlbut. But how wonderfully expanded has the whole work now become in the enlarged schools of sacred literature, which attract clergymen, theological students, and mature men and women, as well as young teachers and pupils. Through Dr. Harper's institutes of sacred literature this higher educational work has pervaded the whole country, and will foster more and more the enlightened and reverent study of the Bible.

To understand the historical development of the modern Chautauqua, with its many-sided educational and social features, we must never lose sight of its original democratic and religious foundations. Whatever may be the tendencies and aspirations, the variations and specializations of this popular educational experiment, the folk-mote remains the basis of all. The Chautauqua Sunday-school assembly began its sessions on the first Tuesday evening in August, 1874, and that evening has continued to be the time for the regular "assembly opening," although fully one month of educational work along secular lines now precedes this memorable date in the Chautauqua calendar. The first distinctive objects of Chautauqua are inseparably connected with biblical study in a Sunday-school normal institute. The early programmes of the assembly show a rich succession of lectures on practical Sunday-school work and on the Bible, with conferences and discussions on methods of teaching. Into the religious current came, in successive years, more and more tributary streams representing modern science and literature in their relations to life and thought. One can distinctly trace in the records of Chautauqua the beginnings of all its modern educational tendencies, whether in pedagogics, art, social science, or the higher education. Map drawing, blackboard sketching, the study of biblical geography in a great relief map of Palestine made of turf and stones, open-air talks, concerts, and even popular entertainments, were not absent from those early programmes. Prominent among the early features of Chautauqua were its wonderful catholicity, its broad spirit of toleration, its democratic and widely representative character. From the very outset members of all the leading



✓ Protestant churches joined in the work. Church congresses were held at Chautauqua and prominent clergymen from various denominations addressed the assemblies. Among the 600 students the very first year there were representatives from twenty-five States and from the provinces of Canada.

#### THE GENERAL PROGRAMME.

Before studying in any detail the educational work actually going on at Chautauqua the observer will be greatly aided by noting at the outset the distinction between the general programme and special-class courses of the college and various other schools. The original and still characteristic educational feature of Chautauqua for the passing visitor is the daily programme of public lectures, concerts, dramatic recitals, and other entertainments, to which everybody has access by virtue of paying for his ticket of admission to the grounds for one or more days.

Bearing in mind the stranger who is within the gates for a single day, the management endeavors to offer a model daily programme throughout the season of nearly two months. Well-known lecturers are early engaged by the chancellor of the Chautauqua Assembly to give popular lectures upon attractive themes—religious, historical, biographical, social, and educational. While there is a growing tendency to increase the number of “connected, serious, and thought-compelling lectures, as opposed to more popular addresses,” stress is still wisely laid upon individual though related subjects, so that there may be a certain definite and finished character for each lecture in the public course. Very often outside specialists and professors from the Chautauqua college of liberal arts give to the public continuous courses upon the university extension plan, but the lecturers are always announced from day to day with fresh topics of general interest.

What a generous, general programme is daily offered by the Chautauqua Assembly to its patrons may be seen from the following specimen which appeared in the Chautauqua Herald for August 13, 1894. All these appointments were quite distinct from the special-class courses in progress during morning hours at the college, the teachers’ retreat, and elsewhere, for which special fees are paid. The criticism will undoubtedly be made that this bill of intellectual fare would cause indigestion, but it may be as easily replied that very few hungry people attempt to exhaust the entire menu at any good hotel table, and that it is easy for grown people as well as for children to be temperate in mental if not in physical ways.

The daily bulletins are much simpler and less confusing than the following complete schedule, which serves as a reminder to all sorts of students and public workers. The general programme, with the



omission of all minor notices, is issued in advance of every summer session :

## DEPARTMENT OF INSTRUCTION.

[John H. Vincent, chancellor.]

*Complete schedule, Monday, August 13.*

|   | A. M. |
|---|-------|
| College prayers (college chapel).....   | 8     |
| Boys and girls' meeting, Dr. B. T. Vincent (temple).....  | 8.30  |
| Children's class, Mrs. B. T. Vincent (Kellogg Hall).....  | 8.30  |
| Woman's Club, "Some aspects of college settlement work," Miss Katherine B. Davis (hall).....              | 9     |
| Chorus drill, Dr. H. R. Palmer (amphitheater).....  | 9     |
| Chautauqua congress (United Presbyterian House).....  | 9     |
| Intermediate class in Bible study, Dr. B. T. Vincent (temple).....  | 9.30  |
| Devotional hour (amphitheater).....   | 10    |
| Primary S. S. teachers' conference (hall).....  | 10    |
| Girls' "Outlook Club" (C. L. S. C. Hall).....   | 10    |
| Lecture: "System as servant or master—which?" Dr. J. M. Buckley (amphitheater).....                       | 11    |
| Boys' club (tent near gymnasium).....   | 11    |
|   | P. M. |
| Children's chorus, Mr. Leason (college chapel).....   | 2     |
| Boys' Club (tent near gymnasium).....   | 2     |
| Lecture: "Ought the United States Senate to be abolished?" Prof. H. E. von Holst (amphitheater).....      | 2.30  |
| Lecture on art and archæology, Rev. C. M. Westlake (museum).....  | 3.30  |
| C. L. S. C. round table (hall).....   | 4     |
| Guitar and Mandolin Club drill (amphitheater, room 2).....  | 4     |
| Chorus drill, Dr. H. R. Palmer (amphitheater).....  | 4     |
| Lecture on Palestine, Dr. H. B. Waterman (Palestine Park).....  | 4.15  |
| Lecture: "Hebrew thought about suffering, skepticism, and humane love," Dr. William R. Harper (hall)..... | 5     |
| Lecture: "Private property and the distribution of wealth," Dr. R. T. Ely (college chapel).....           | 5     |
| Political Economy Club (college chapel), to follow Dr. Ely's lecture.....                                 | 5     |
| Epworth League Conference (M. E. House).....  | 7     |
| Christian Endeavor Conference (Presbyterian House).....   | 7     |
| Twilight concert, Rogers's Band (Miller Park).....  | 7     |
| Boys' Club (tent near gymnasium).....   | 7.30  |
| Illustrated art lecture: "Italian, French, and Russian art," Rev. Fred Hovey Allen (amphitheater).....    | 8     |

## THE C. L. S. C.

In 1878, the fourth year of the Chautauqua experiment, which still retains all its original characteristics, the now famous C. L. S. C., or Chautauqua literary and scientific circles, began to widen from that beautiful highland lake all over the country. More than 60,000 students are now enrolled in these Chautauqua reading circles.<sup>1</sup> They may be found not only throughout the United States and Canada, but in Great Britain, Russia, India, Japan, the Sandwich Islands, and South Africa. They are simply local unions, self-organized upon a

<sup>1</sup> A good article on Chautauqua reading circles, by Dr. Edward Everett Hale, may be found in the Unitarian Review for September, 1887.

very democratic plan, for the purpose of reading good works of literature, science, and history under the central direction and guidance of Chautauqua. The members are for the most part persons past the school age. Many of them are graduates of local institutions seeking a broader outlook upon the world of knowledge. Very many are persons who have never enjoyed higher educational advantages. Although busily engaged in the employments of everyday life, they nevertheless crave some kind of intellectual and moral inspiration. Too many even of the more fortunate class who have enjoyed a school or college training sink into a local slough of despond in the years following graduation. They revert to original ignorance, like the German peasantry after leaving the Volksschulen, or else they begin to subsist upon the husks of literature, as do the great masses of under-educated men and women. One of the very best features of the C. L. S. C. attempt to raise the educational level of ordinary society is the awakening of a generous and helpful spirit on the part of the better educated, especially of college men and women, who are sometimes willing to review their former studies in readable English "by the side of less favored neighbors, giving them needed help in an unpretentious and unpatronizing way." (Dr. Vincent, in the Chautauqua Movement, p. 77.)

#### CHAUTAUQUA FOR THE PEOPLE.

Chautauqua goes to the people when people can not come to Chautauqua. Thousands of readers who are unable to spend a summer season at Chautauqua Lake pursue from year to year the prescribed courses of private reading. The simple facts are eloquent. Since 1878, when the first class was organized, 225,000 readers have joined. Every year 10,000 or more new readers are enrolled. There are at least 1,000 local reading circles, miniature Chautauquas, where, year after year, systematic courses of private reading and class discussion are enthusiastically maintained. The State of New York alone has more than 100 Chautauqua local unions. The wholesome, quickening influences of these little neighborhood circles of organized intelligence upon the surrounding communities are not overstated by the friends of the Chautauqua movement.

Not alone to neighborhood groups and to communities remote from Chautauqua does her uplifting power proceed, but also to isolated individuals and lonely toilers. "Many a frontier cabin, Southern plantation, ship on the seas, has felt the influence of the Chautauqua circle. Wherever there are earnest people who would make life more than dull routine or idle play Chautauqua is ready to go with a definite plan of reading, with specified books, with hints and suggestions, with a monthly magazine, and other means of stimulus and aid. Individual readers may join, even though there be no 'circle' in the community."

The strong hold which Chautauqua has upon individual students is indicated by the simple fact that in the exciting year of the Columbian

Exposition more than 1,000 graduates of the four-years course in the C. L. S. C. continued their private reading under Chautauqua direction along more special lines. Such graduate individual work goes on for years.

It is a good thing for isolated students or sluggish communities to have a well-managed course of prescribed reading. Any definite, well-considered plan is better than no plan. The main advantage of all school and college training comes from its methodic, regular character. There are doubtless many mistakes in the choice of teachers and text-books, but, in spite of mistakes and defective theories, the great process of human education is still going forward by courses of curricula far better than by spasmodic, jerky, capricious efforts. The same principles of method and continuity which guide all school and college training should be applied to higher popular education. In times past the Chautauqua counselors may not always have discovered the best text-books, but they did what they could, and perhaps they understood their popular constituency far better than did some educational critics and would-be advisers, who in satisfying their own high ideals, overshot the mark.

#### THE GREATER CHAUTAUQUA.

President Merrill E. Gates, of Amherst College, is a believer in the larger idea of Chautauqua pervading the home and neighborhood life of the American people by means of good reading in history, science, and literature. He says:

"The true significance of the Chautauqua movement seems to me not to lie chiefly in the great summer gatherings, in the crowded lectures, the enthusiastic conferences, and the inspiring commencement addresses at Chautauqua itself, nor in the diplomas awarded there. But the Chautauqua circles throughout the land mean useful, wisely directed home reading and intelligent general conversation in the home circle wherever their influence extends. Not only is it true that neighborhoods which have been stagnant for the lack of any common themes for conversation higher than the local gossip have been stirred to new intellectual life when the circles met to consider the facts of science or history and the noble thoughts and perfect forms of the best literature of all time, but in the home circle as well, in the family life of thousands of homes, children and parents have new themes brought into their horizon and talked about with a common interest at the table and in the evening. More than is yet realized has been done to purify and strengthen that intelligent, Christian home life which is the hope of our land."

#### CHAUTAUQUA A LIVING FORCE.

The Chautauqua Assembly Herald, August 23, 1894, emphasized this point of view:

"The recent social disturbances emphasize the need for greater and



more widespread intelligence among the great body of the people. Among the beneficent developments of the past twenty years perhaps no movement has arisen which is destined to exert a wider or more healthful influence upon the public mind than that of the Chautauqua Literary and Scientific Circle. All over the land thousands of reading circles have, during the past sixteen years, carried on discussions upon historical, literary, and economic subjects, and their influence has been felt in stimulating other literary movements throughout the country, while the Chautauqua circle itself is only in the beginning of its usefulness. The plan of the work for the current year is peculiarly attractive, as it deals not only with the growth of the English nation, but with the study of Europe in the nineteenth century, especially a timely subject in view of the stirring events which at present involve so many European nations. As is the case in every great movement, the power of the C. L. S. C. may be indefinitely increased by adding to the number of those who are willing to serve as leaders. Many young men and women have more of the quality of genuine leadership than they appreciate, and such are often surprised to find that a handful of earnest, determined students have almost without effort so added to their number as to leaven the whole community. There are few persons who can not influence at least one other, and it is by this personal influence that power is to be generated which will in time revolutionize society. The C. L. S. C. is a present living force and needs only a great number of active disseminators of that force to extend its influence through all classes of society. Ministers, teachers, and professional men and women of all classes are already enlisted in the work as helpers. But the field is wide and more are needed. Let all who are interested in the future welfare of the nation look carefully into this plan for the self-education of the multitudes."

#### THE CHAUTAUQUA CIRCLE.

Let us now inquire exactly what Chautauqua proposes to accomplish for higher popular education and how she goes about her work. We quote from daily announcements in the Chautauqua Assembly Herald:

"The C. L. S. C. (Chautauqua Literary and Scientific Circle) aims to promote habits of reading and study in history, literature, science, and art; to give college graduates a review of the college course; to secure for those whose educational privileges have been limited the college student's general outlook upon the world and life, and to encourage close, connected, persistent thinking.

"A definite course covering four years.

"Each year's course complete in itself.

"Specified volumes approved by the counselors.

"Allotment of time by the week and month.

"A monthly magazine with additional readings and notes.

"A membership book with review outlines and other aid.



"Individual readers may have all the privileges.

"Local circles may be formed by three or more members.

"Time required, about one hour daily for nine months.

"Certificates granted to all who complete the course.

"Seals to be affixed to the certificate are granted for collateral and advanced reading.

"The C. L. S. C. maintains that the higher education should be extended to all, young and old, rich and poor, and that education, best begun in academy, college, and university, is not confined to youth, but continues through the whole life. The circle is not in any sense a college, either in its course of study or in its methods of work. Yet it puts into the homes of the people influences and ambitions which will lead many thousand youths to seek colleges and universities. The circle is unsectarian and unsectional, promoting fraternity and inspiring help to the home, the church, and the state.

"The C. L. S. C. is for busy people who left school years ago, and who desire to pursue some systematic course of instruction.

"Individuals may prosecute the studies of the C. L. S. C. alone, but their efforts will be greatly facilitated by securing a local circle of two or more persons who agree to meet as frequently as possible, read together, converse on the subjects of study, arrange for occasional lectures by local talent, organize a library, a museum, a laboratory, etc. A local circle may give attention to the cultivation of taste, cleanliness, etc., in towns and villages, and discuss sanitary and other questions tending to public health and social progress.

"It is for high-school and college graduates, for people who never entered either high school or college, for merchants, mechanics, apprentices, mothers, busy housekeepers, farmer boys, shop girls, and for people of leisure and of wealth.

"Many cultivated men and women, whose reading covers a wide field, keep up regularly the C. L. S. C. work, finding that this comprehensive review every four years gives to their other reading a value often lost to the unsystematic reader. Several members are over 80 years of age; comparatively few are under 18.

"The circle has gradually secured a class of graduates (classes of 1882-1895) who wish to pursue the current year's course of reading with the undergraduates.

"An annual fee of 50 cents will entitle a graduate to all communications from the central office for that year, including the 12-page memoranda on the regular year's reading.

"In this way two seals can be earned—

"(1) For reading the books of the regular course and filling out the regular 4-page memoranda, a special seal.

"(2) For filling out the 12-page memoranda on the reading of the regular course a white seal will be given if 80 per cent of the questions are correctly answered.

"The membership book contains duplicate sets of question papers, called memoranda. These are not examination papers, but are review questions which may or may not be answered from memory. The filling out of these memoranda is not essential to graduation.

"The 4-page paper gives a brief condensed review of the whole course, and members who fill out this paper for each of the four years receive one white seal at graduation. The 12-page paper offers a more thorough review. One white seal is given for each paper which shows 80 per cent of correct answers. Besides the seal—

"(1) Any seal-course paper will be corrected and returned to the student upon payment of a special fee of 50 cents.

"(2) Any seal-course paper will be graded and returned to the student upon payment of a fee of 25 cents. (In this case the questions which are not wholly correct will be indicated, but the correct answers will not be given.)

"(3) All other seal papers for which no special fee has been paid will be graded, and the exact grade reported to the student, but the papers will not be returned. The 4-page papers will be examined to determine whether they rank above or below 80, and the result reported.

"(4) The 4-page papers will be graded and returned for a fee of 25 cents, or corrected and returned for a fee of 50 cents. One fee for the four papers."

#### THE FOUR-YEARS COURSE.

*General subjects of the four-years course.*—1895-96: American history, literature, and institutions; beginnings of civilization—psychology. 1896-97: French history—astronomy; oriental and Greek civilization. 1897-98: German history—political economy; Roman history, literature, and art. 1898-99: English history, literature, and art; nineteenth century history—geology.

Each year of the Chautauqua four-years reading course bears a distinctive or characteristic name. 1894-95 is called the "English year," because chief attention is paid to English history, English literature, and English composition. The subject of Europe in the nineteenth century has been wisely added to this course. Special attention is devoted by *The Chautauquan* (the organ of the C. L. S. C.) to articles on English and nineteenth century history, and a new department has been added to the magazine, namely, a special study of current topics.

#### THE COURSE FOR 1894-95.

The prescribed reading for 1894-95 is as follows:

|  |        |
|--|--------|
| The Growth of the English Nation (illustrated). Katharine Coman, professor of history in Wellesley College.....          | \$1.00 |
| Europe in the Nineteenth Century (illustrated). H. P. Judson, professor of political science, University of Chicago..... | 1.00   |
| From Chaucer to Tennyson (with portraits). Henry A. Beers, professor of English literature, Yale University.....         | 1.00   |

|   |        |
|---|--------|
| Renaissance and Modern Art (illustrated). W. H. Goodyear, lecturer at Brooklyn Institute.....                                     | \$1.00 |
| Walks and Talks in the Geological Field (illustrated). Alexander Winchell, late professor of geology, University of Michigan..... | 1.00   |
| The Chautauquan (12 numbers, illustrated).....  | 2.00   |

The total cost of books and the Chautauqua magazine is, therefore, \$7. Considering the field covered and the excellent character of this educational material, one can not pronounce this charge excessive. Usually the cost is defrayed by a group of people who consent to use the same text-books. The importation of this choice collection of reading matter into a family circle or little neighborhood amounts to the institution of a library or book club, somewhat superior to the cheap novels and expensive subscription books which find their devious way into rural households.

#### THE COURSE FOR 1895-96.

|   |        |
|---|--------|
| The Growth of the American Nation (illustrated). H. P. Judson, professor of political science, University of Chicago.....     | \$1.00 |
| The Industrial Evolution of the United States (illustrated). Col. Carroll D. Wright, United States Commissioner of Labor..... | 1.00   |
| Initial Studies in American Letters (with portraits). H. A. Beers, professor of English literature, Yale University.....      | 1.00   |
| Some First Steps in Human Progress (illustrated). Prof. Frederick Starr, University of Chicago.....                           | 1.00   |
| Thinking, Feeling, Doing (illustrated). E. W. Scripture, director of psychological laboratory, Yale University.....           | 1.00   |
| The Chautauquan, a monthly illustrated magazine (Volume XXII begins with the number for October, 1895), one year.....         | 2.00   |

The readings of the several classes for any one year are the same. The course marked out above for the year beginning in the autumn of 1895 and closing in the early summer of 1896 will be: The first year for the class of 1899; the second year for the class of 1898; the third year for the class of 1897; the fourth year for the class of 1896.

#### HOW TO JOIN THE C. L. S. C.

Send answers to the following questions, together with 50 cents (fee for one year), to John H. Vincent, drawer 194, Buffalo, N. Y. [A blank containing these questions may be had by applying to the C. L. S. C. office at Buffalo.]

1. Give your name in full.
2. Your post-office address, with county and State.
3. Are you married or single?
4. What is your age? Are you between 20 and 30, or 30 and 40, or 40 and 50, or 50 and 60, etc.?
5. What is your occupation?
6. With what religious denomination are you connected?
7. Are you a graduate of a high school or college? If so, give the name of the institution.
8. If you have been a member of the C. L. S. C. in past years, but are now beginning anew, state to what class you formerly belonged.
9. Do you join as (a) an

individual reader, (b) a home-circle reader (in a family), or (c) as a "local-circle" reader? The reader may change from one relation to another at will.

#### C. L. S. C. OFFICES, BUILDINGS, AND ORGANIZATION.

The visitor at Chautauqua will find the busiest office work in progress at the new and attractive C. L. S. C. building. Here come students for programmes and information regarding classes and special courses of every sort. Some of the rooms of this building are used for class work and special conferences. Opposite the C. L. S. C. offices is the building devoted to the editorial and publishing departments of the Chautauqua Assembly Herald. Here may be found the various publications and text-books used in connection with the work of the C. L. S. C.

In one quarter of the grounds may be seen class cottages and other buildings devoted to class rooms and reunions of the C. L. S. C.. Considerable class spirit is developed in these vast reading circles scattered throughout the country. They have their mottoes, their colors, class badges, and class flowers. Through the columns of *The Chautauquan*, the monthly magazine devoted to the interests of the C. L. S. C., the various classes are represented by personal letters and official communications. During the summer season open-air conferences or so-called "round tables" are held in the hall of philosophy in the interest of the C. L. S. C.

When recognition day approaches, toward the last of August, class rallies become frequent, and a surprising enthusiasm is developed. Sometimes a large number of the earlier classes are present. It is customary from time to time to call the roll of all the classes, from the very first which graduated in 1882 down to the one which is in process of formation. There are class presidents, class secretaries, a general secretary, and an executive secretary, all of whom combine to promote class spirit and progress from year to year. The recruiting stations for the C. L. S. C. are the local Chautauquas (about 50 in number) and the round table conferences, at which well-known speakers represent and encourage the Chautauqua idea.

The best source of information regarding the character and usefulness of the C. L. S. C. work may be found in the annual reports (published in the Chautauqua Assembly Herald) by Miss Kate F. Kimball, who has been for some years the executive secretary and practical leader of this deservedly popular educational work. Miss Kimball is the author of a bright remark, quoted at Chautauqua by a Smith College graduate as the cause of her own conversion to "C. L. S. C. ism," and recommended to all other college graduates: "The C. L. S. C. is the best thing to keep your background fresh."

Miss Kimball, the sister of a Johns Hopkins physicist, now professor in Amherst College, is at the head of a large staff of clever and efficient young women at the central office of the C. L. S. C. at Buffalo, N. Y.



The passing visitor will find that office the scene of busy correspondence with Chautauqua pupils who are scattered throughout the world. From this center circulars of instruction and directions for study are distributed, and to this center all reports of progress are returned. The methods of classifying and preserving the records of Chautauqua work are businesslike and suggestive of good administration. At the central office may be seen a full set of the outlines for various courses of study in connection with the C. L. S. C.

#### CIRCULATION AND USE OF BOOKS.

At the fourteenth anniversary of the founding of the Chautauqua Literary and Scientific Circle, August 6, 1892, Principal J. C. Hurlbut said:

"The Chautauqua Circle has aided in the circulation of good books. If the man who makes two blades of grass grow where one grew before is a benefactor of the world, what shall we say of him who is able to put one good book in the hand of a reader? The Chautauqua Circle has circulated something like an average of 30,000 sets of books every year, or near that amount, and sometimes, indeed, more, and in some years perhaps a little less; but that number would perhaps be the average figure. In fourteen years 30,000 sets would be about 180,000 volumes per annum, and in fourteen years it would come to nearly 2,000,000 copies of good books that have been circulated under the auspices of the Chautauqua Circle. It is something to have put one good book into the hand of a reader. It is more to have put 2,000,000 good books into the hands of the people; and that is something which nobody can gainsay the Chautauqua Circle has accomplished.

"They are books that would not have been circulated, and very nearly all of them would not have been written, if it had not been for the Chautauqua Circle. I remember when the first order was sent from Chautauqua for the first book in the C. L. S. C. course. A telegram was sent to the great firm of Harper Bros., in New York, asking them to send to Chautauqua 300 copies of Green's Short History of the English People. They thought some wonderful mistake had been made; that it was probably 3 copies that were needed, or at the outside 30. They were almost paralyzed at the order—that an institution supposed to be something of a camp meeting should send for 300 such books at one time. The 300 grew to thousands before the class of the first year had finished its readings. These books have been circulated, and a great many books are in libraries that would not otherwise have gone. Many books in libraries are allowed to become dusty with age, and a great many are put away on center tables and opened about once a year. These books of the Chautauqua Circle—2,000,000 of them—have been read during the last fourteen years.

"If you should go among the homes of the people who purchased them you would find them, not on the upper shelf, or the shelf that is locked up, or in the case which no one can open, but you would find them on the shelf where people can get at them, find copies lying on the sewing tables of women, upon the counter, or in some other convenient place accessible to the clerk in the store. More than that, you would find that these books have been read. There are very few books circulating in large numbers but in a very little while they also, in very large numbers, come back to second-hand bookstores—in two or three years after the book has been published and perhaps widely circulated. If you go into our second-hand bookstores you can always find a large number of copies of such books. I am one of those people who spend much time in second-hand bookstores looking for books, and sometimes seeking some particular work; and I have rarely found copies of the books issued under the auspices of the Chautauqua Circle in such places. Those books have been kept, they have been read, and bear the signs of use; been read over and over again, and sometimes passed from hand to hand; and if you go to the homes in this country you will see the shelf of Chautauqua books, the nucleus of a library. It has done more than circulate books; it has led people to read, led people to think as the result of reading.

"You can not read a book of power without its having some sort of influence upon your character. I read the lives of eminent men and find how often a book, at some critical period in their history, has given a bent to their nature and their entire after life. A man of science happened in his youth to pick up some scientific work, and had his attention and thought turned to that line afterwards, which began with the reading of that book. A man read some book upon religion, upon the relation of man with God, and became an honest living Christian as a result of it. So we find all over the world that books influence character. What has been the influence of the Chautauqua books upon those who have read them? If you were to obtain their testimony, you would find they will tell you with surprising unanimity that not only their minds have been enlarged, not only has the world of thought in which they live been widened, but their hearts have been lifted up, their characters have been strengthened, they have become the better because of this institution which was established fourteen years ago on this very place. I believe there is a direct result of the Chautauqua Circle that not many people realize, although many people feel it. Here is a father and mother who have been reading the books of this course together. It has given them something to think about. It has lifted up their minds, and as a result in the family the themes of conversation around the table and around the fireside are thoughtful and intelligent themes. They talk about the heroes of the past; they talk about the principles of science, and the sons and daughters and others in the family receive an impetus and inspiration toward

education. And I believe if you could go through the colleges of America to-day, East and West, you would find many students there who, through the influence of their parents, received their first shaping toward the intellectual life from the Chautauqua Circle."

#### DR. J. G. FITCH ON READING CIRCLES.

A competent judge of educational matters, Dr. J. G. Fitch, Her Majesty's chief inspector of the training colleges of England, and author of *Lectures on Teaching*, said to an audience of 5,000 people at Chautauqua, August 7, 1888, on the opening night of the assembly:

"One feature of your work specially interests me. I mean the service which your reading circles render to remote students, who have not access to great libraries nor to great teachers, to colleges, or to universities, but who in silence and at a distance from these opportunities are nevertheless trying, with God's help, to improve their minds and to get something of the treasures of wisdom that lie enshrined in books. I do not think that any of us have adequately realized the great change that is going on in the intellectual life of Europe and of this country through the multiplication of cheap books. I do not think that we have ever rightly appreciated the wealth that there is in books, and the power there is by which they may do what universities and oral teaching were once the only means of doing. \* \* \* It seems to me that you have hit upon one of the most admirable and fruitful devices ever yet adopted when, by means of reading circles and correspondence helps, the solitary student has opened to him what he shall read and what use he shall make of his reading when he has it. This is a great work on which you have often invoked the divine blessing. \* \* \* I earnestly trust that it may continue to go on and prosper, that this great assembly may be one of the most notable agencies by which you may encourage the love of truth, the devotion to knowledge, and the help and guidance of the people of America."

#### CHAUTAUQUA AND GREEK CULTURE.

In these days, when not a few college men are turning away from classical to modern studies, it is gratifying to find the Chautauqua literary circles still directing attention to old Greece. Of the seven books required for the Greek year in 1888-89, three related to the history and literature of Hellas. The Chautauquan magazine, which has a circulation of nearly 70,000 copies, announced for its readers in the C. L. S. C. a series of nine articles on Greek biography by Prof. T. D. Seymour, of Yale University, and a number of papers on modern Greece by J. P. Mahaffy, of Dublin; also sketches of Greek art and archæology, with some account of physical training and the position of women among the Greeks. In a special or graduate course of private reading in connection with the four-years course in the C. L. S. C. it



is interesting to note Mahaffy's Old Greek Education. This entertaining little volume it is well to read with Chautauqua in mind, and some may have the curiosity to examine the Outline History of Greece, proposed for the C. L. S. C. It gives one a curious feeling toward these little books to think that they are the means by which a knowledge of Greek civilization and Greek culture is transmitted to thousands of eager minds in our great modern democracy. Is this knowledge superficial? So is all knowledge. American education hardly scratches the surface of things either in school or college. The ancient Egyptians, we are told, obtained very good crops of grain without plowing in the fertile mud left by an inundation of the Nile. American pioneers have raised a great deal of wheat in their rough way from the virgin soil of forest clearings. "Behold the sower went forth to sow." Some seeds fell by the wayside, others upon rocky places, others among thorns, but still others upon good ground and yielded fruit, some a hundredfold. "He that hath ears, let him hear."

#### ORGANIZATION AND MANAGEMENT OF LOCAL CIRCLES.

Perhaps a few of the following suggestions may prove helpful in the foundation and management of local reading circles in this country. Most, if not all, of the points have been derived from actual knowledge of and experience with Chautauqua circles. The general secretary, Mr. A. M. Martin, has collated fifty such points in the "Chautauqua Pocket Manual. Local circles; how to organize and how to conduct them. Office of the C. L. S. C., Buffalo." At Chautauqua the present writer saw, after it had been to the World's Fair, a scrapbook full of original manuscript or typewritten programmes, representative of the work of these local reading circles scattered throughout the land. The variety, originality, suggestiveness, and educational interest of these programmes, invented by the people and for the people, were really marvelous. They surpassed most systems of theoretical pedagogics, and show what vital powers of educational self-help are now springing up in America.

(1) A local circle is an organized meeting for mutual improvement. It may be formed of any number from 3 to 20. It should hold regular meetings, weekly and fortnightly, to review the subjects and encourage members in daily reading.

(2) A simple organization is the best. All the officers needed are a president, a secretary and treasurer, and an instruction or executive committee to plan the work in advance and arrange the programmes for class meetings.

(3) Circles should meet in the church lecture room, or in the school-house, or in Y. M. C. A. parlors, or wherever good accommodations can be freely obtained.

(4) Occasional public meetings should be held in the church or town hall, and general invitations issued to hear a lecture by some person



not a member of the circle. Social receptions and literary, musical, or art exhibitions may also be held.

(5) At all local meetings the minutes should be read, the roll should be called, and reports of progress asked from each member.

(6) Ten or fifteen minutes should be devoted by the president or class leader to general drill. Questions should be asked upon the class reading in such a way as to bring out concisely the pivotal points of the lesson.

(7) Questions left unanswered at the previous meeting should be revived and settled.

(8) Debate should be encouraged. It is well to appoint leaders or disputants on each side of a mooted question and to limit the time of each speaker to a few minutes.

(9) A competitive question exercise is sometimes profitable. Two appointed leaders should choose sides and ask questions alternately, on the required reading, of the persons on the opposite side. A record of the questions answered or missed by each side affords all the interest of an old-fashioned spelling school.

(10) Put questions to the whole circle which shall awaken serious thought and bring out a series of good replies, which may be formulated by the secretary for class use or reference.

(11) Require the members in turn to give each an interesting fact noted in connection with the reading under discussion, and continue the exercise until each person has had five opportunities to contribute to the general stock of knowledge.

(12) Listen to résumés of the whole matter by appointed members, or to essays or short talks upon special subjects.

(13) Require some one to write upon the blackboard an analysis, synopsis, or outline of the topics considered at each meeting.

(14) Receive from members questions for investigation and report at the next meeting.

(15) Make use of written questions, carefully prepared in advance by the leader or by appointed members for testing the knowledge of the class. The questions may be drawn or distributed, and answers given orally or in writing.

(16) Hold "round tables," or conferences, for the general improvement of the circle. Here helpful suggestions may be introduced. Here special topics and historical characters can be discussed. Here the meaning and pronunciation of words should be explained. Here all practical difficulties are presented and mooted questions solved.

(17) Select readings from general literature bearing on the subjects in hand may be introduced.

(18) Imaginary tours through the countries and cities studied will awaken great interest if accompanied by maps, photographs, or lantern views, with picturesque descriptions of travel from entertaining authors.

(19) Declamations, readings, recitations, and brief extracts from prose or poetry relating to subjects that interest the class will prove very stimulating.

(20) Vocal or instrumental music, solos, duets, quartets, choruses, or amateur orchestras will enliven and entertain the circle. Home talent should always be developed or pressed into social service.

(21) Utilize all available local talent. Secure for the circle helpful and relevant lectures by clergymen, physicians, lawyers, teachers, college graduates, and passing visitors. Try to preserve as far as possible the unity of work undertaken by the reading circle and do not let it degenerate into a "variety show."

(22) Encourage local history in the "American year." Have papers upon local topics. Publish them, if approved, in local newspapers. Keep scrapbooks of such local contributions.

(23) Begin, or help develop, a museum in connection with a town or local library. Collect rare old books, portraits, prints, maps, manuscripts, historic letters, or records. Cultivate local pride and interest in historic places and old traditions. Mark historic sites or buildings with simple memorial tablets.

(24) Identify the circle with the higher intellectual, moral, and social interests of the community. A little group of public-spirited Chautauquans may uplift a whole neighborhood, promote village improvement, good taste, neatness, sanitation, in short, the public health and welfare, in countless ways.

(25) Do not neglect contemporary history and the progress of the outside world. An occasional synopsis or digest of current events will help to make members more alert and intelligent in the reading of newspapers and magazines.

(26) Make excursions to battlefields and other historic places. Visit museums, libraries, art galleries, and public buildings whenever an opportunity is afforded. Report what you have seen to your circle and stimulate others to use their powers of observation in travel or visitation.

(27) Keep records of all meetings. Preserve the history of your own circle and all its doings. Make the journal of each evening so interesting that members shall delight to hear it read at the opening of the next meeting.

#### A JEWISH BRANCH.

One of the most novel developments of Chautauqua C. L. S. C. work was the establishment of a Jewish branch in 1893 by Rabbi Henry Berkowitz, of Philadelphia. The origin of this new and interesting movement is described by Rabbi Berkowitz in an interview published in the Chautauqua Assembly Herald August 4, 1893. He said the work started with a lecture given by himself in the Rodef Sholom congregation at Philadelphia. He there urged self-culture along Chautauqua lines. As a result the Young People's Society of his congre-

gation issued a call which resulted, April 18, 1893, in the appointment of a joint committee from the various Jewish societies of the city. By means of this committee an organization for the encouragement of Jewish self-culture was effected. Later, at the suggestion of Rabbi Berkowitz, who had been in correspondence with Chancellor Vincent, the organization was placed upon a C. L. S. C. basis. It was thought wise to profit by the long experience and existing methods of Chautauqua and to adopt her four-years course of reading, with some modifications to meet the special needs of Jewish students. Two new courses were added: (1) Jewish history and literature, and (2) readings in Jewish literature. The first and more advanced course was prepared by the learned rabbi, Prof. Richard J. H. Gottheil, of Columbia College, who has delighted Chautauqua audiences by his liberal views. His syllabus of instruction is very suggestive, and was used by the writer for review purposes in connection with a collegiate class course in Jewish history at the Johns Hopkins University. A popular course of reading in Jewish literature was also instituted for the "Young Folks' Reading Union," after the model of the Chautauqua Young Folks' Course.

While the local headquarters of this new educational work among the Jews is at Philadelphia, enrollments are reported to the central C. L. S. C. office at Buffalo. Jewish members receive the C. L. S. C. membership book and all other official communications. In Miss Kimball's report, published in the Chautauqua Assembly Herald August 23, 1894, is the following statement from Dr. Berkowitz: "We have enrolled some three hundred members, and a great many are following the readings who are not regularly enrolled. One hundred and forty-seven of these members belong to the general C. L. S. C. course, the others to the two special courses. The membership extends throughout 14 States of the Union and 15 circles have been reported from various cities and towns. The membership includes persons of the most diverse callings in life, and the courses of reading are found to be suited to the needs and tastes of readers from 20 to 70 years of age. \* \* \* This has been a year of planting. The promise of the harvest in the future is excellent."

More recent reports show that this Jewish work has been extended through 18 States and that the membership has reached about 500. The work has kindled great enthusiasm not only among earnest-minded Israelites who have been encouraged by the Jewish press and pulpit, but also among Christian Chautauquans.

There are now special courses in Jewish history and literature covering the entire range of these subjects from Bible times to the present. Very elaborate syllabi of instruction and of recommended readings have been prepared by Professor Gottheil, of Columbia College, who has based his outlines upon Graetz's famous History of the Jews, a work now published in English by the Jewish Publication Society of America.



A Young Folks' Reading Union was organized for the encouragement of home study by Miss Diana Hirschler, of Philadelphia. The object of the union is to foster an interest in Jewish history and literature. Among the books required for the first year are the *Outlines of Jewish History*, by Lady Magnus; *Stories from the Rabbis*, by Dr. A. S. Isaacs; and *The Hammer, a Story of the Maccabees*, by A. J. Church. Other good books are recommended.

An enrollment fee of 25 cents is required from each member. A leaflet of instruction is then issued, arranged for eight months and outlining the course of study, with suggestions for semiweekly meetings in local reading circles. The leading features of the Chautauqua system have been adopted, including the custom of sending memoranda to the central office in answer to specific questions. A certificate is given to all who complete the two-years course.

Thus the example and influence of Chautauqua have made themselves felt for good in the encouragement of higher popular education among the oldest historic people of the world. This fact is paralleled by the institution of a Catholic Chautauqua along precisely the same lines as the original C. L. S. C., including the summer school. This Catholic movement will be described under Part III of this report.

#### PRISON WORK.

For many years the work of the Chautauqua literary and scientific circles has been faithfully carried on in the prisons of Stillwater, Minn., and of Lincoln, Nebr. The Look Forward Circle of this latter place began the Chautauqua year 1893-94 with 60 members, of whom 32 were new accessions, 14 had read one year, 11 had read two years, 2 three years, and 1 had received his certificate as a graduate. Of this persistent Chautauquan a correspondent in Lincoln writes to Miss Kimball, secretary of the executive committee: "He is a remarkable man, though he has had few opportunities for education. He has from the outset applied himself most diligently, and at the class exercises has shown himself thoroughly prepared and his ambition and earnestness have exceeded anything I have seen even in other circles." Miss Kimball says the prison circle has had the aid and cooperation of professors from the Nebraska State University and others who have made the programmes interesting and helpful. "The Prison Reform Club, which is the outgrowth of this circle work, is composed of a few Lincoln Chautauquans who have shown their genuine interest in the Look Forward Circle by helping those who are discharged from prison to enter fields of honorable employment and to make them feel that they have friends who are really interested in their welfare. The Pierian Circle at Stillwater, Minn., publishes each week in the Prison Mirror reports of the circle meetings and papers written by the men. \* \* \* During the year more than thirty papers written by members were published in the Mirror, and all of these show thought and care, and many of them



decided originality." (Miss Kimball's report for 1893-94, published in the Assembly Herald August 22, 1894.)

#### LANIER AND THE CLASS OF 1898.

Miss Kimball, in her report of the growth and progress of the Chautauqua Literary and Scientific Circle for 1894-95, says:

"While the distractions due to the World's Fair and to the prevailing financial depression were not without their influence upon the membership of the C. L. S. C., the circle has been quick also to feel the impulse of better times, and this has been strikingly shown during the past year in the increased membership of the new class of 1898, which exceeded that of 1897 by more than 2,000 students. Early in the summer of 1894 a request came from one of the Southern Chautauquas that the class might be named in honor of the two Southern poets, Sidney and Clifford Lanier. The suggestion was very gladly accepted, and the class adopted as its motto a line from a poem of Clifford Lanier, 'The humblest life that lives may be divine.' A decided increase in the membership of the C. L. S. C. in the far South, especially in Alabama, Georgia, Virginia, Tennessee, and Maryland, is pleasant evidence of the appreciation in which the name of Lanier is held. In certain other portions of the country also the gain in membership has been unusually large. Illinois, Connecticut, Kansas, and Oregon have a larger enrollment than for several years past. In New York, always a strong State, the gain has been much greater in proportion than usual, while in foreign lands the membership is nearly double that of last year. The subjects of study for the year, English and nineteenth century history, proved very attractive, and this fact, together with the activity of State and county secretaries and C. L. S. C. workers in all parts of the country, awakened widespread interest."

#### GRADUATE COURSES FOR THE C. L. S. C.

A remarkable and encouraging fact in the C. L. S. C. work is that so many of its graduates continue their studies after completing a four-years course and receiving their certificates. For the year 1888-89 Miss Kimball, the secretary, reported that one-tenth of the whole previous graduate constituency of Chautauqua had been pursuing various lines of work under the direction of their alma mater. Some were taking the new and improved courses of the C. L. S. C. Some were uniting in graduate circles for special and advanced work in history, literature, or science, and some were working alone, but still under Chautauqua direction.

"These graduate circles," says Miss Kimball, "stand as the permanent representatives of the Chautauqua movement in hundreds of communities." It is the declared purpose of the C. L. S. C. "to develop each year some one special course of study to which the attention of all graduates shall be directed for that year. Facilities for advanced

work and a limited amount of personal direction from able instructors will be one feature of these special courses, in order that graduates may keep ever in mind the high attainments which are possible to them. By this means the unity of the graduates' work will be largely increased, although circles having special preferences in any one line of work will still be at liberty, as heretofore, to make their own selection of courses." Special recognition in the form of "seals" or certificates are given for this extra work. A combined course in English history and English, prepared for Chautauqua graduates by college professors, has proved very attractive and helpful. A new course on modern European history, to be studied by means of standard authorities with a syllabus of topics and suggestions, was prepared in 1895 by Dr. H. B. Adams and G. B. Lynes, of Johns Hopkins University.

Special attention is directed to current history in the magazine called *The Chautauquan*, by Mr. Ned Arden Flood, son of Dr. Theodore L. Flood, the editor. A new course in foreign travel through England has been devised by Miss Susan Hale, of Boston. The student will, by the aid of good literature and pictures, maps, etc., take an imaginary journey through the most interesting historical places of our mother country.

Among the special or "seal" courses of reading designed for graduates and others are the following: (1) General history; (2) English history and literature; (3) oriental history and literature; (4) Greek history and literature; (5) Latin history and literature; (6) American history and literature; (7) modern history; (8) political science; (9) geography and travel; (10) biblical literature; (11) secular normal course for teachers; (12) astronomy; (13) geology; (14) chemistry; (15) microscopy; (16) botany; (17) zoology; (18) physics, two courses; (19) psychology; (20) philology; (21) art; (22) the house and home; (23) temperance; (24) missions; (25) Sunday-school normal; (26) advanced normal; (27) physiology; (28) the Bible; (29) Shakespeare; (30) French history and literature; (31) stories of the nations; (32) agriculture; (33) anthropology.

Each course is accompanied with a kind of suggestive syllabus of topics or questions, upon which answers or so called "memoranda" are written. Many of these helpful outlines and topical arrangements for private study were prepared by experts, and are excellent guides for individual students or classes who are compelled to work at a distance from any established institution of learning. The scheme of study in anthropology, prepared by Dr. Frederick Starr, of the University of Chicago, is particularly good.

#### GRADUATE WORK AT PORTAGE, WIS.

In her report of the C. L. S. C. for 1888-89, Miss Kimball, the executive secretary, describes a remarkable educational experiment undertaken by Chautauqua graduates in Portage, Wis. In that busy

manufacturing town a distinct circle was organized for a comprehensive study of Germany, its geography, history, biography, literature, and art. "Topics for study were carefully arranged in advance and printed upon a leaflet, with lists of desirable books of reference. A course of stereopticon lectures was suggested as an aid to study, and almost unawares the society found itself carrying out a broad educational scheme which embraced a large portion of the intelligent part of the community. The opera house was secured for a course of lectures, a stereopticon and slides were rented, and all available local talent—clergymen, lawyers, and teachers of the city—pressed into service as lecturers. Season tickets were sold at \$1 each, entitling the holder to 20 lectures, illustrated by from 20 to 50 views, at an expense of 5 cents for each lecture. Single tickets were sold at 50 cents each, and, though the expense of the course amounted to nearly \$400, the circle closed the season free of debt. Increased interest in the lectures was manifested as the season advanced, and many weary and burdened men and women came to look forward to the lecture evening as the one bright spot in their lives. The influence upon the community was very marked, and the members of the circle were so encouraged by their success that a similar plan for the study of the British Isles was suggested for the next year. The undergraduate circle worked heartily with their comrades in pushing the enterprise, at the same time keeping up their regular meetings, while the graduates met once a week and studied up the topic for the coming lecture."

#### GRADUATE MEMBERSHIP IN 1895.

Writing in August, 1895, Miss Kimball said:

"The graduate membership of the C. L. S. C. now exceeds 35,000, and, while many of these have naturally drifted into other lines of work, a large number are interested in the C. L. S. C. special courses, and in many communities graduate circles exert a wholesome influence in educational affairs."

#### CHAUTAUQUA EXTENSION AND THE C. L. S. C.

A remarkable adaptation of university extension methods to the local work of the Chautauqua literary and scientific circles is described by Miss Kate F. Kimball in her report for 1892-93 (see Chautauqua Assembly Herald, August 24, 1893):

"A new phase of C. L. S. C. work was introduced during the winter of 1892-93 as a sort of experiment in the general line of university extension, although disclaiming entirely so ambitious a title.

"The modified plan, known as the 'Chautauqua extension,' did not originate in America, having been first attempted in Great Britain, without, however, resulting in the same degree of success which has been accorded to it here. The details of the plan as carried out during the winter of 1892-93 by the Chautauqua Circle included a single course of six lectures on Greek social life, prepared by Prof. Owen Seaman.



The lectures were a modification of a similar course which Professor Seaman had delivered at Chautauqua with great acceptability during the summer of 1892. Each lecture was printed separately in large, clear type, the course including the following topics:

- "1. Introductory.
- "2. Religious beliefs and ritual.
- "3. Home life—Dress—Status of women.
- "4. Marriage customs—Rites of burial—The great games.
- "5. The games (continued)—The theater.
- "6. The slave question—Public life—Conclusion.

"Any community proposing to give the course of lectures was provided with as many announcements for general distribution as were desired, course tickets to be sold at 50 cents each, and a 16-page syllabus for every ticket holder. The syllabus contained a full outline of each of the 6 lectures, a list of recommended books, a set of questions to be used as a quiz, and several illustrations to elucidate the character of the Greek dress as set forth in one of the lectures.

"By this arrangement as many as possible of the essential features of the university extension idea were carried out—namely, the lectures and syllabus prepared by a university extension lecturer, and opportunities for a quiz and an examination. The only essential feature which was lacking was that of the personal presence of the lecturer himself, and it was the elimination of this feature which made it possible for many small communities to reap the advantages of the university extension idea in other respects. The expense of the course was so adjusted that no community undertaking the scheme incurred any financial risk. One-half of the gross receipts from the sale of course tickets at 50 cents each (the whole amount in no case to exceed \$25) was all that was required by the Chautauqua office. This arrangement made it possible for a small community which could not sell more than 20 tickets to give the course in a parlor, incur no expense whatever, and secure a fund of \$5 for the purchase of books, maps, or other helps of value to a reading circle.

"Nearly 70 courses were given, and it is interesting to note the practical workings of the plan. The problem of a lecturer was solved in various ways, according to the opportunities offered by the community.

"Pastors and high-school principals gladly gave their services, and in one town the professors in the theological seminary presented the lectures. In Denver, Colo., a professor at the State University took charge of the course, a large number of tickets were sold, and the circles were able to secure the use of a lantern and of a rare collection of Greek views. A home-missionary circle in Connecticut gave the lectures as a parlor course, and netted \$12.50 for the desired object. In a town in southern New Jersey the lectures were given in the parlors of a hotel, and with such success that application was made for 30 examination papers.



"From a town in New York State, where the lectures were delivered in the Congregational Church, the pastor sent an interesting report. He wrote: 'We have given three of the lectures in the Chautauqua extension course, which was inaugurated by the West Side C. L. S. C., and it has been a source of gratification that we have found 70 who would purchase course tickets. Our city can barely sustain a popular lecture course once in three or four years. This kind of work, if continued, will furnish a constituency for that, as well as for university extension. We have two papers read each evening from the questions in the syllabus of the preceding lecture, and our hour is voted all too brief.' In a town in Ohio, where men and women of special ability were invited to conduct the quiz, this part of the lecture is reported as especially valuable and interesting. One more report will show how the plan was carried out in a large city church in Pennsylvania. The report came from the pastor of the church, who was the leader of the circle: 'I write to let you know of the great profit and enjoyment afforded the Whittier Circle of the C. L. S. C. by the lectures on Greek social life. The lectures themselves are written in popular vein, and, while showing research and familiarity with the subject, are such as the ordinary outsider enjoys, while to the Chautauquan in this Greek year they are a delight. Last evening our programme consisted of music, lecture third on Greek costume and domestic life, followed by a most interesting quiz, not of the audience, but of a local artist who goodnaturedly consented to answer any question we might thrust at him concerning Greek costumes or modern dress as related to art in sculpture or in painting. A very lively half hour spent in the exercise brought to a close a most interesting and helpful evening. We congratulate you upon the whole plan of these lectures, and hope that the system may be extended.'

"The plan was not confined to a limited area, but was tested in no less than 27 States, in communities numbering from a few hundred to many thousand inhabitants, and has proved itself capable of filling so real a need that additional courses have been arranged for the season of 1893-94. These will include, in addition to the course on Greek life, 6 lectures on the poetry of Robert Browning by Prof. Owen Seaman, 6 lectures on social science by Prof. A. W. Small, of the University of Chicago; 3 lectures on great periods of mediæval history and art by Prof. William H. Goodyear, of the Brooklyn Institute, and 6 lectures by President William R. Harper, of the University of Chicago, on prophecies concerning the fall of Jerusalem. The whole plan fits in admirably with the C. L. S. C. courses of reading, since non-Chautauquans can be induced to take up a part or all of the C. L. S. C. course as a preparation for the lectures, while regular C. L. S. C. students find that the course admirably supplements their work."

In her report of progress for 1894-95 Miss Kimball says:

"The Chautauqua system of 'read lectures' has been continued with marked success during this, its third year. Nearly 40 courses were

given in as many cities and towns. The social science lectures proved, as usual, the most popular of the series. The pastor of a Congregational church in Wisconsin wrote of this course: 'The lectures have been a great help to me, and I believe a great help to my people. I can not commend them too highly; they have enlisted a good deal of interest, and my church has been crowded.'

"In Paterson, N. J., the literary committee of the Epworth League, in cooperation with the church organization, gave the course with great success. The pastor of the church wrote: 'The course is producing a marked impression.' Under the auspices of a Congregational church in Pittsfield, Mass., the course was given during the winter with an attendance of nearly 100. The lectures were so much appreciated that they were also utilized by a workingman's club in connection with a factory district. A social science club of 19 men took the 6 lectures as the basis of their winter's study and discussion. In addition to this series, courses on great periods of mediæval history and art and on the poetry of Robert Browning have found an appreciative hearing. A club of high-school teachers in Minnesota used the lectures for club work instead of giving them as a regular course. In New Hampshire a company of ladies belonging to a magazine club used first the course on Greek social life and met with so much success that they followed it with the social science lectures. The members of the club came together from quite widely scattered country homes, and in spite of inclement weather the interest was maintained to the close, and papers showing much careful thought were presented by several members. In Montana the Episcopal, Methodist, and Presbyterian ministers are combining their churches and people in the interest of social science, and the "Friends in Council" of Berlin, Wis., write that the Browning course has given great pleasure as well as profit. Churches, clubrooms, and private parlors have been utilized, and many different organizations have tried the plan on a greater or less scale. The New Century Club, of Utica, N. Y., used the social science course for a group of 20. A similar number took the course under the auspices of a political equality club in Iowa. The Doane College Y. M. C. A., in Nebraska, had an average attendance of 60. In Lancaster, Pa., the course was given in the interest of a proposed club for studies in municipal government. Other courses were given by Chautauqua circles, Epworth leagues, or under general church auspices. The plan seems to possess great possibilities, and other courses will undoubtedly be added in the near future."

#### OPINIONS OF THE C. L. S. C.

[Principal A. M. Fairbairn, of Mansfield College, Oxford, England.]

The C. L. S. C. movement seems to me the most admirable and efficient organization for the direction of reading and, in the best sense, for popular instruction. To direct the reading during a period of years for so many thousands is to affect not only their present culture but to

increase their intellectual activity for the period of their natural lives, and thus, among other things, greatly to add to the range of their enjoyment. It appears to me that a system which can create such excellent results merits the most cordial praise from all lovers of man.

[Rev. Dr. Jesse L. Hurlbut, of New York.]

The C. L. S. C. leads each of its members to read the equivalent of 15 books of 300 pages each every year, or 60 volumes in four years. Any institution which leads a great multitude of people each year to read this amount of good, thoughtful, uplifting literature has brought an invaluable blessing to the age.

[President W. R. Harper, of the University of Chicago.]

I think there can be but one opinion regarding the influence of the C. L. S. C. movement. It seems to me the most powerful and far-reaching of the popular educational forces of this country. It stands alone, and must everywhere be acknowledged to be an admirable agency for general culture among all thinking classes throughout the land.

[John Fiske.]

I have always been very heartily in sympathy with the movement. It brings certain people in relations with the literary and scientific world which they could not possibly maintain without such assistance. As a stimulating and suggestive agency toward mental culture I regard it as admirable, and I am convinced it has not been equaled by any other system of popular education.

[Hamilton W. Mabie, editor of the Outlook.]

The characteristic which distinguishes the American who has not enjoyed the advantages of a high intellectual training from men of his class in Europe is his aspiration. This must be wonderfully stimulated by an educational agency so comprehensive as the C. L. S. C. It is, in my opinion, an exceedingly efficient force for directing intellectual system in planning one's life.

[Prof. Albert S. Cook, Yale University.]

No agency for the diffusion of education among adults is so effective, in my judgment, as is the C. L. S. C. There is no one beyond its reach, and few, in proportion, are they who would not be helped by following the course.

#### COLLEGE OF LIBERAL ARTS.

The highest development of Chautauqua is seen in her College of Liberal Arts. This institution stands upon the highest land of her broad domain of 225 acres. It is a breezy summerhouse built in a Moorish style of architecture, and looks out upon Chautauqua Lake and the charming hillside landscape beyond. The site is a veritable acropolis for natural beauty.



The interior of the college building is simple and unfinished except with a library, an open fireplace, chairs, and long tables. The plain class rooms, with their desks and blackboards, are good enough for summer work. The long door-like windows open directly from the ground floor upon the piazzas, and the students never complain of bad air, as they often do in American colleges and German universities.

The Chautauqua College of Liberal Arts is a historical outgrowth of the Normal School of Languages, first opened in 1879, the same year as the teachers' retreat. At first each school of language was independent of all the rest, but they are now coordinated with other subjects into one institution, embracing various special departments, with professors borrowed from the various colleges and universities. For example, in the summer of 1894 the schools were organized as follows:

1. *English language and literature.* (Profs. A. S. Cook, of Yale, and R. G. Moulton, of Chicago.)—Courses were given in July and August of 1894 in Old English (5 hours a week), Tennyson (5), Browning (5), with interpretive studies in Spencer and Milton (5). For many years the English department at Chautauqua was most successfully conducted by Prof. W. D. McClintock, a former pupil of Professor Cook at the Johns Hopkins University. They are both experienced Chautauquans.

2. *German language and literature.* (Prof. Henry Cohn, of the Chicago School of Languages.)—Various classes were well conducted: Beginning German (10 hours), intermediate German (10), advanced German (5), six German lectures on Faust, scientific German for advanced students. A German club was maintained for conversation, singing, and dramatic entertainment. A German table was provided at one of the cottages. The whole department impressed me as very efficient and well directed. Under such excellent guidance a faithful student could make wonderful progress in German in six weeks.

3. *French language and literature.* (Prof. A. de Rougemont, Adelphi Academy, Brooklyn.)—Beginning French (10 hours), intermediate French, advanced French (with French composition), Cercle Français (outdoor class for French conversation), French lectures. Long experience at Chautauqua has tested and approved this practical and scholarly work.

4. *Preparatory Latin.* (Prof. F. J. Miller, University of Chicago.)—Beginning Latin (10 hours a week by the inductive method), Virgil (5), teachers' advanced training course (5 hours, with sight reading and topical studies of syntax). Professor Miller is an experienced Chautauquan, and is very successful in his methods of work, which combine the best features of construction and analysis.

5. *Preparatory Greek.* (Prof. W. E. Waters, University of Cincinnati, president of Wells College, Aurora, N. Y.)—Beginning Greek (10 hours a week, inductive method), Anabasis (10).



6. *Physics*. (Prof. J. H. Montgomery, Allegheny College.)—General physics (3-hour lectures, with laboratory work), electricity (2).

7. *Chemistry*. (Prof. L. H. Batchelder, Hamline University, St. Paul, Minn.)—Systematic chemistry (10, lectures with Remsen's introduction), qualitative analysis (10), quantitative analysis, organic chemistry (text-book, Remsen).

8. *Geology*.—For many years this department has been most successfully conducted by Prof. Frederick Starr, of the University of Chicago, the eminent specialist and experienced lecturer in anthropology. In the summer of 1894 his place was taken by Miss Anna A. Schryver, of the Teachers' College, New York.

9. *Biology*. (Dr. H. P. Johnson, Des Moines College.)—Elementary zoology (10), advanced zoology (10).

10. *Mathematics*. (Prof. William Hoover, Ohio University, Athens, Ohio.)—Algebra (5 hours), geometry (5), trigonometry (5), analytical geometry (5), differential calculus (5), astronomy (5).

11. *History and political science*. (Profs. George B. Adams, Yale; H. B. Adams, Johns Hopkins; H. E. von Holst, Chicago, and Bernard Moses, California).—Outlines of mediæval history (5 hours for 3 weeks, G. B. Adams, with 5 public lectures on English colonization and empire), history of Prussia (5 hours for 3 weeks, H. B. Adams, with 5 public lectures on political revolutions of the nineteenth century), history of France during the restoration (5 hours for 3 weeks, H. E. von Holst, with 2 public lectures on "Utopia" and "Should the United States Senate be abolished?") principles of politics (5 hours for 3 weeks), and Spanish economic and political administration in America (5 hours for 3 weeks, B. Moses, with public lectures on South American history and other subjects). The above work, collectively, was called the "Specialized department for 1894," and represents an earnest attempt on the part of the college to promote class work as well as popular interest in the allied subjects of history and politics.

12. *Economics and social science*. (Profs. R. T. Ely, University of Wisconsin; J. R. Commons, University of Indiana; C. R. Henderson and George E. Vincent, both of University of Chicago.)—Money (5 hours for three weeks, R. T. Ely, with 6 public lectures on private property), political economy (5 hours for 3 weeks, J. R. Commons), introduction to the study of society (5 hours for 6 weeks, G. E. Vincent), social pathology and its place in general sociology (4 hours for 3 weeks, C. R. Henderson, with public lectures upon social problems).

The reader of this condensed programme will doubtless be surprised at the extent, character, and variety of the class courses offered at Chautauqua during the six-weeks summer season. The classes in English and the modern languages are the largest. The classics also draw a good number of students and are very helpful to teachers and young men preparing for a regular college course. The laboratory and library facilities are hardly adequate to existing needs, although upon

request special collections of books are now loaned to Chautauqua from the State library in Albany by the board of regents, who are fostering local lectures by lending so-called "traveling libraries," each in its own bookcase. At Chautauqua in one season there were such special loan collections of books for the study of French history, United States history, political economy, and English literature.

In addition to the regular class work the departments of literature, history and politics, and economics and social science always offer to the Chautauqua public short courses of popular lectures, very often upon the same general themes as are treated in class rooms at the college. This policy helps to defray the cost of college lecturers by charging their public services to the general programme of the assembly, and it also helps to increase and strengthen the college classes and gives their work and lecturers a healthy popularity. If college professors everywhere could be thus utilized occasionally for public purposes, it would benefit them personally and undoubtedly improve the character of their class instruction, for oftentimes the public standard of excellence is higher than the professor's private standard in the class room.

The Chautauqua College of Liberal Arts is not and never can be a financial success. It will always need aid and support from the General Assembly, but the college is doing work at once honorable and helpful to the larger Chautauqua. The college has greatly improved the general tone of the place, and has given better methods and greater continuity to the more popular forms of instruction in the hall of philosophy and the great amphitheater. A higher standard of public entertainment has become necessary, and even the Sunday-school work feels the stimulus of acknowledged leaders like Dr. Harper and his corps of assistants from the college world. Chautauqua is now developing new life in its original field of instruction.

The cost of tuition in any one department at the college is \$5 for the summer session. No student is allowed to take studies in more than two departments without special permission from the principal. History and political science count as one department, and so do economics and social science.

It should be distinctly understood that the College of Liberal Arts is quite distinct from the Chautauqua literary and scientific circles and from the teachers' retreat. The province of the latter is to teach educational methods. The C. L. S. C. attempts to give a general outlook upon the world of literature and science by means of systematic courses of reading in English. The college is a long step forward from these beginnings. The college has introduced classical and other linguistic courses, including French and German. The reading circles are still under general direction through correspondence with a central secretary. The college has distinct departments, each under individual direction. In the local circles intellectual stimulus comes from the contact of members and from joint discussion, as well as from private

reading. In the college there is direct contact between special students and individual instructors in lecture or laboratory courses during the summer session of six weeks. Afterwards, if the student desires it, there is careful supervision of home studies along specific lines by means of correspondence, written reports, or examinations at least once a month.

#### SPECIALIZED DEPARTMENTS.

Chautauqua has always laid particular stress upon biblical studies, teaching, and lectures, and ancient and modern languages. In recent years special attention has been given to history, politics, economics, and English literature. In the summer of 1894 representatives were engaged from the historical departments of the following universities: California, Chicago, Yale, and Johns Hopkins; and earnest efforts were made by the management to give the study of European and American history a prominent place in the Chautauqua system.

Whatever may have been the practical results at the summer school, it is now clearly manifest that history is the prevailing element in most of the Chautauqua reading courses, and rightly so, for history represents the real life and experience of mankind. Matthew Arnold omitted the most vital element of human culture when he defined it as a knowledge of the best that has been thought and said in the world. He should have added the best that has been done. It is not thinking and saying merely; it is doing that makes culture possible and life worth living. History is the knowledge of man's deeds. "Be ye doers of the word, not hearers only."

Next in importance to law and religion and other forms of historical and political science, upon which all good government and the very life of society depend, come literature, art, and natural science. Chautauqua has rightly given more prominence in her system of popular culture to historical, intellectual, and religious things than to material nature. This is the way in which mankind has made progress out of savagery, and along this ancient pathway of law, religion, philosophy, and letters every new generation of man must walk. Man has conquered nature by his deeds, his works, and his inventions, but he is always seeking new worlds to conquer in the domain of ideas, of art, literature, and science. The true, the beautiful, and the good are gradually revealed to him in fields of observation, expression, and conduct.

It will be a long time before first-rate, popular work can be done in natural science except, perhaps, in summer laboratories by the seaside, but Chautauqua has made good beginnings in observational study. It has provided modest, inexpensive laboratories for physics, geology, chemistry, and biology. Very superior instruction in the historical science of anthropology has been given at Chautauqua by Professor Starr, now of the University of Chicago.



By far the best specialized department at Chautauqua is that of English literature. Begun years ago in scholarly but popular ways by Prof. Albert S. Cook (before his connection with Johns Hopkins, California, and Yale universities), developed by his Hopkins pupil, Prof. W. D. McClintock, it reached in the summer of 1895 its highest success. The combination of special talent then brought together for teaching English, one of the noblest studies in the world, is indicated by the following names, which speak for themselves to those who know: Professor Cook, of Yale; Professor Winchester, of Middletown, Conn.; Professors Moulton and Lewis, of the University of Chicago, and Professor Sherman, of the University of Nebraska.

#### STATISTICS OF THE COLLEGE, 1894.

At the closing exercises of the College of Liberal Arts, August 15, 1894, Chancellor Vincent gave the following statistics for the summer session of that year:

The total number enrolled was 405, represented in the various departments as follows: Latin, 83; English, 75; German, 66; French, 50; mathematics, 39; history, 31; Greek, 27; economic and social science, 15; physics, 11; chemistry, 11; biology, 8; Hebrew, 13; geology, 5.

The States and countries represented were, Maine, 2; Massachusetts, 6; Vermont, 1; Connecticut, 2; Rhode Island, 2; New York, 103; Pennsylvania, 57; New Jersey, 6; Ohio, 41; Maryland, 8; Delaware, 2; District of Columbia, 3; Virginia, 2; West Virginia, 3; North Carolina, 2; South Carolina, 2; Georgia, 2; Louisiana, 2; Alabama, 2; Mississippi, 7; Texas, 7; Tennessee, 5; Kentucky, 8; Arkansas, 2; Missouri, 2; Indiana, 8; Illinois, 28; Michigan, 9; Minnesota, 9; Iowa, 6; Wisconsin, 5; Colorado, 1; Kansas, 1; Indian Territory, 1; Nebraska, 3; North Dakota, 2; California, 1; Canada, 4.

The occupations represented were: Teachers, 217 (distributed as follows: In preparatory schools, 189; in colleges, 28); students, 71 (distributed as follows: In preparatory schools, 32; in colleges, 39); ministers, 9; music teachers, 5; bookkeepers, 4; tradesmen and business men, 5; professional men other than ministers, 3; missionary, 1.

The religious denominations represented were: Presbyterian, 92; Methodist Episcopal, 77; Protestant Episcopal, 51; Congregational, 41; Baptist, 28; Friends, 7; Reformed, 7; Lutheran, 6; Unitarian, 6; United Presbyterian, 6; Christian, 5; Disciples, 3; Roman Catholic, 2; Independent, 2; Swedenborgian, 2; Universalist, 1; United Brethren, 1; Free Baptist, 1.

Institutions represented by teachers or students were: Wellesley College, Princeton College, Northwestern University, Cornell University, Oberlin College, Ohio University, University of Illinois, University of Chicago, Lake Forest University, Bryn Mawr College, Yale University, Allegheny College, The Teachers' College (New York), McKendrie College, Cedarville College, Blue Mountain College, Temple College,



Ripley College, Hobart College, Indiana Normal College, Central College, Woman's College of Baltimore, Woman's Medical College of Pennsylvania, Monongahela College, Belmont College, De Mile College, Weatherford College, Benzonia College, Westminster College, Lindenwood College, Guilford College, Rogersville Synodical College, Hope College, Mississippi College, United Presbyterian Theological Seminary, Columbia College, Berea College, Harbord College (Toronto), Franklin College, Trinity College, Talladega College, Allentown College, and others.

The principal degrees held by the students were: Ph. D., 1; A. B., 45; A. M., 34; B. S., 6; B. L., 5; B. Ph., 4; B. E., 3; M. E., 3; Ph. M., 1; LL. B., 1; M. E. S., 1; B. E. S., 1; M. L., 1; D. D., 1; Pd. M., 1; Pd. B., 1; M. E. D., 1; M. S., 1.

Eighty-five students had attended the Chautauqua schools in previous years; 43 persons had attended other summer schools; 28 were members of the correspondence college, and 67 were members of the C. L. S. C.

#### THE SEASON OF 1895.

The sessions of the Chautauqua College of Liberal Arts closed in the open air with, as Chancellor Vincent said, the benediction of the sunshine upon it. The season of study here was marked by two most encouraging features. The attendance has been greater than ever before, and the earnestness and willingness to work shown by the students have won the warm approval of every teacher. Of the 2,000 pupils at work here this season in all departments of the college and special schools, 451 were in the College of Liberal Arts. They were distributed among the different departments as follows: English, 130; German, 84; Latin, 72; French, 67; Greek, 31; mathematics, 30; art history, 20; chemistry, 10; sociology, 10; physics, 9; American history, 10; biology, 9; philosophy, 2, and general, 25. The largest enrollment ever reached in previous years in the college was 425 in 1892.

The States and countries represented were as follows: New York, 96; Pennsylvania, 95; Ohio, 48; Illinois, 26; New Jersey, 21; North Carolina, 12; Georgia, 8; Connecticut, 8; Massachusetts, 7; Minnesota, 7; Virginia, 7; Maryland, 7; Kentucky, 7; Missouri, 5; Tennessee, 6; South Carolina, 4; Wisconsin, 4; Indiana, 4; Iowa, 4; District of Columbia, 4; Kansas, 3; Florida, 3; West Virginia, 3; Texas, 3; Mississippi, 2; Michigan, 2; Oregon, 2; Vermont, 2; North Dakota, 2; Alabama, 1; New Hampshire, 1; Colorado, 1; California, 1; Montana, 1; Nebraska, 1; Rhode Island, 1; Canada, 3; Africa, 1.

The occupations represented were: Teachers, 215 (distributed as follows: In colleges, 35; normal schools, 17; high schools, preparatory schools, seminaries, and institutes, 71; public schools of lower grade, 57; private schools of lower grade, 20; kindergarten, 3; music, 2); students from other institutes, 53; ministers, 8; librarians, 2; private secretary, author, physician, surgeon, broker, lawyer, civil engineer,

steamboat engineer, druggist, clerk, reporter, missionary, grocer, each 1 representative.

Religious denominations were represented as follows: Presbyterian, 105; Methodist, 70; Baptist, 30; Congregational, 24; Episcopalian, 41; United Presbyterian, 10; Friends, 5; Independent, 3; Universalist, 2; United Brethren, 3; Lutheran, 6; Reformed, 4; Unitarian, 5; Jewish, 1; Mennonite, 1; Roman Catholic, 5; Disciples, 4; Cumberland Presbyterian, 2; Reformed Presbyterian, 2; Seventh-Day Baptist, 1; Methodist Episcopal South, 1; English Lutheran, 1.

Collegiate institutions represented by students were: Yale University, University of the City of New York, University of Chicago, University of Pennsylvania, Cornell University, University of Denver, Lake Forest University, Illinois Wesleyan University, Vanderbilt University, Washington University, Allegheny, Bucknell, Westminster, Buchtel, Bethany, Rollins, Beloit, and Mount Holyoke colleges, and the Woman's College of Baltimore.

Fifty-two of those in attendance studied in other summer schools in former years, 99 were college graduates, and 32 have taken a second degree; 53 were graduates of normal schools, 23 were members of the Chautauqua Correspondence College, and 40 were members of the C. L. S. C.

#### CORRESPONDENCE SYSTEM.

The correspondence system of college teaching is based on (1) printed instructions sent out by the department in which the student has chosen to work, (2) on skillfully constructed examination papers which test the student's understanding of what he may have read, and (3) on written answers or reports sent in to the department at least once a month and then carefully corrected and returned to the student. The system develops independence of character, habits of investigation and self-help, and the power of accurate and exact statement on the part of the pupil. It necessarily involves thoroughness of preparation and complete command of the entire month's work, which has covered the ground of what would ordinarily occupy many recitations in a class. Class work, although undoubtedly superior, has its evils, as every college student well knows. The oral recitation is hurried and covers for each individual only a narrow range of knowledge. In large classes students are infrequently called up, and when they have recited they sometimes become inattentive and take a long mental rest before beginning to calculate the probabilities of another call. It is usually thought by students and instructors that written examinations are, on the whole, the best and fairest all-round test of a man's ability and attainments. Such severe trials of the knowledge of the pupil and of the patience of the teacher are these written examinations that they are not generally resorted to more than once or twice a term; in fact, under the old college régime only once a year, in the dreaded "annuals." It should be remembered that the correspondence system requires at least

monthly written examinations from October to June. These are rarely if ever taken by persons who have shirked their duty, who have crammed and cribbed for a special test, or who are disposed to cheat in the absence of a proctor. Correspondence students are generally persons of mature years, who are very much in earnest, and who have studied for self-improvement or a genuine love of the subject rather than for a diploma or for class rank.

Of course the correspondence system is no adequate substitute for the constant drill, perfect regularity, personal supervision, suggestive power, active stimulus, and generous rivalry of class-room work in the very sight and hearing of a vigorous and enthusiastic instructor day after day and throughout four years. No sane man would ever think of advocating education by correspondence as superior to education by contact. It is for the very sake of establishing personal relations between master and pupil, between the individual and society, that the summer session of the Chautauqua College of Liberal Arts was devised. Although a six-weeks course of lectures and of class work seems very trifling as compared with the thirty-six or more weeks of the college year, it should be remembered that one college lecture or one sermon is sometimes enough to determine a life choice. If a college professor can sometimes strike sparks of intellectual light in fifty minutes, he ought to be able to kindle some sort of a fire in a course extending from three to six weeks. If a man's scientific career, like that of Prof. Joseph Henry, once secretary of the Smithsonian, is sometimes determined by the reading of a single book, "although by no means a profound work," as he himself admitted, it is possible that the suggestion of a course of good reading for an earnest student at Chautauqua may bear rich fruit in coming years. Many a university student in Germany, England, and America will admit that the best results of a professor's teaching are introductions to special literature and to new vistas of scientific interest. Many a doctor of philosophy, returning from years of foreign note taking, has left his voluminous notebooks unused and has sought fresh knowledge and inspiration in books recommended by his professors or in more recent literature.

Finally, it should be borne in mind that the Chautauqua correspondence system is designed for those and for those only who, by the force of circumstances, are prevented from attending a regular college. As Principal Harper truly says: "There are thousands of men and women unable to avail themselves of oral assistance who, nevertheless, are eager to study. It is surely an advantage of the correspondence system that it can aid this large class who otherwise would have no help and would make no progress."

#### CERTIFICATES AND DEGREES.

Upon the completion of the four-years course of reading in the Chautauqua Literary and Scientific Circle a certificate to that effect is awarded. This certificate is not a college diploma and "has not the



remotest connection with a degree." (Official report to the regents of the University of the State of New York, 1891.) The Chautauqua idea is to encourage people to pursue continuous courses of reading. In recognition of work of special merit, as indicated by the individual reports or memoranda returned by pupils to the central office, special seals are attached to the above certificate. To graduates of the C. L. S. C. are offered advanced courses of private reading, in connection with a syllabus prepared by some good authority. Seals are given for this work also, and a good Chautauquan may carry on privately special studies for many years; but these so-called "seal courses" do not lead to any final degree. They are simply advanced reading courses which satisfy a growing demand for opportunities of specialization in history, literature, or natural science after the student has enjoyed a four-years general outlook through the C. L. S. C.

By the charter granted in 1882 by the regents of the University of the State of New York Chautauqua has the degree-giving power, but she has shown no disposition to abuse the privilege. "No honorary degree has been or can be conferred under the rules of the board of trustees." But they may confer ordinary college degrees through the College of Liberal Arts, although this is rarely done and never except in cases absolutely worthy of recognition. Department work, begun at Chautauqua in the summer season, is sometimes continued throughout the year under the direction of college professors, who employ circular letters of instruction, with frequent written examinations upon assigned reading. This is usually guided by a syllabus of topics, with the aid of standard text-books and works of reference, chiefly helpful in historical and literary courses. Laboratory courses are more difficult to secure.

All candidates for degrees are now examined by the regents of the University of the State of New York. Sixteen full courses are required after admission to the college for any baccalaureate degree. The following ten courses are prescribed: Latin, Greek, German or French, mathematics, English, history, mental science, political economy, one course in physical science, one course in biology. Six electives, subject to approval, may be chosen in regular departments. Not more than two courses from one department may be counted toward a degree. A single course is regarded as equivalent to ten hours' study a week. The number of circulars of instruction sent out in each course varies with different instructors; but in all cases the lessons cover enough ground for thirty-two weeks of serious work in one subject. Written examinations of a searching character occur at monthly, fortnightly, or weekly intervals, according to the nature of the subject. Such written tests are more thorough and satisfactory than the usual infrequent oral recitations of lazy students in large classes. Chautauquans are generally earnest, faithful, and conscientious. They have no desire and no motive to shirk.



Before the completion of any department course a written examination is required covering the entire work. A certificate is then given by the college examiner and the registrar to the successful candidate. Sixteen such certificates entitle him to the degree of bachelor of arts, bachelor of philosophy, or bachelor of science, according to his combination of studies. Latin and Greek are both required for B. A.; Latin and German or French for B. P.; three modern languages for B. S., besides such literary, historical, and scientific courses as those above mentioned.

Under such conditions as the Chautauqua College of Liberal Arts imposes very few degrees will ever be won, but when won they will represent more honest work and higher attainments than many a college diploma awarded in course or by academic grace. In 1894 only two college degrees were awarded by Chautauqua: One B. S. to Mrs. H. L. McChesney, of Albion, N. Y.; and one B. A. to F. B. Waite, of Wyoming, N. Y., who had been three years at Hamilton College, and who, for extra work, received the same degree from his alma mater. In some summer seasons at the Chautauqua College of Liberal Arts as many as one-quarter of the entire number of students enrolled have already received college degrees from well-known institutions. Chautauqua University is already a school for college graduates as well as for the people.

#### SCHOOLS OF SACRED LITERATURE.

In connection with the college and in cooperation with the American Institute of Sacred Literature (directed from Chicago by Dr. W. R. Harper) are the summer schools of sacred literature at Chautauqua. Considered as a special department of the college, the schools of sacred literature are by far the strongest and best patronized. In the season of 1894 some 200 students were enrolled for biblical studies. Adding this number to the 405 registered in the other 12 departments of the college, we have a total of 607. The registration fee in the English Bible schools is only \$1. Regular tuition for the class study of Hebrew or Greek is \$5, the same charge as in each of the college and most of the special departments.

In the schools of Hebrew and the Old Testament and of the New Testament Greek a large number of practical linguistic courses are given, all more or less upon the inductive method, which, under Principal Harper's leadership, runs through all the schools of language at Chautauqua. With Dr. Harper is closely associated in the teaching of Hebrew Prof. D. A. McClenahan, of the United Presbyterian Theological Seminary, Allegheny City, Pa., and Dr. W. W. Moore, the well-known biblical scholar of Hampden-Sydney. The teaching of New Testament Greek is chiefly done by Prof. Charles Horswell, of Northwestern University, Evanston, Ill.

The general subjects taught in the schools of sacred literature for six weeks are: (1) The Bible in English; (2) the Bible in Hebrew and

Greek; (3) biblical literature; (4) biblical history; (5) biblical theology; (6) the Hebrew language; (7) New Testament Greek. The specific themes of instruction vary somewhat from year to year. In the English Bible school the work is sometimes centered upon the Pauline Epistles. During the summer session of 1894 the entire work was concentrated upon Jesus, the Messiah. Principal Harper lectured upon Messianic Prophecy; President George S. Burroughs (formerly of Amherst College, now president of Wabash College) reviewed the political, social, and religious aspects of the Times of Christ; Prof. Charles Horswell, the Historical Life of Christ; Rev. O. C. S. Wallace, of Toronto, the Teachings of Christ. All this class work was carried on in the morning hours in the college chapel, and was well calculated to train students and teachers for efficient cooperation in Sunday schools, where lately the international lessons have been specializing upon the Life of Christ.

A very interesting and instructive aspect of the work of the English Bible school is the popular presentation in the amphitheater on Sunday morning at 9 o'clock of "Bible studies" and "Bible lectures," each complete in itself, by eminent specialists. In the whole work of Chautauqua nothing impressed me more profoundly than those enlightened expositions of Hebrew prophecy and Hebrew thought by Principal Harper. Professor Horswell's lecture on St. Paul was also wonderful for its historical insight and spiritual illumination. Prof. R. G. Moulton's Interpretive Recital of Job attracted a large, sympathetic audience. Anybody who doubts the educational value and social expediency of critical and dramatic presentations of religious subjects should go to Chautauqua and attend a Sunday morning class in the amphitheater, or, on a week day, see and hear Professor Moulton present a noble Greek drama like *Alcestis*. Through Macmillan & Co. he is now issuing the *Modern Reader's Bible*, a series of handy little volumes presenting the sacred scriptures in modern literary form. Matthew Arnold conceived the same idea in his school edition of *Isaiah*, but he did not carry it out so practically and so fully as Professor Moulton has done.

#### HIGHER CRITICISM AND STATISTICS.

At the closing exercises of the Chautauqua schools of sacred literature, August 15, 1894, Chancellor Vincent said that the so-called higher criticism may seem, by emphasizing the human elements in the Bible and in the processes producing the Bible, to weaken its divine authority, but that in reality it brings the Bible itself and the divine life in it nearer to the human heart.

Chancellor Vincent read the following statistics with relation to the schools of sacred literature, which will prove of general interest. The total number of students enrolled was 200, and the largest attendance 181. Many States and countries were represented by the students. The following is a brief summary: Connecticut, 6; New York, 42; New

Jersey, 6; Pennsylvania, 47; Ohio, 18; Delaware, Maryland, Virginia, West Virginia, and Massachusetts, 2 each; North Carolina, 3; Georgia, 6; Mississippi, 1; Texas, 1; Florida, 2; Tennessee, 4; Kentucky, 12; District of Columbia, 1; Michigan, 8; Illinois, 8; Minnesota, 3; North Dakota, Iowa, Wisconsin, Kansas, Indian Territory, California, Mexico, and Africa, 1 each; Missouri, 3; Indiana, 7; Canada, 4; China, 9.

There were 15 denominations represented in the schools, the Presbyterian standing first and the Methodist Episcopal next. The following is the representation: Presbyterian, 61; Methodist Episcopal, 46; Baptist, 18; Congregational, 25; Episcopal, 15; Friends, 7; Disciples, 5; Reformed, 4; United Presbyterians, 3; Lutheran, 2; Methodist Episcopal South, 2; Universalists, 2; Cumberland Presbyterian, Free Will Baptists, and Unitarian, 1 each.

There was a wide range of occupations represented by the students. There were 55 teachers in secular schools, 18 clergymen, 8 students, 3 business men, 3 missionaries, 2 evangelists, 2 Y. M. C. A. secretaries, 1 Bible teacher, 1 physician, 1 lawyer, 1 theological student, 1 music teacher, 1 dressmaker, 1 domestic, and 1 professional nurse. The remainder were women engaged in home duties. Exclusive of ministers only 21 of the 200 members enrolled had completed previously any special course of Bible study.

#### THE SCHOOLS OF SACRED LITERATURE IN 1895.

The total enrollment was 195, distributed as follows: English Bible, 178; Hebrew, 12; New Testament Greek, 5.

Twelve States were represented, as follows: New York, 49; Pennsylvania, 32; Ohio, 20; New Jersey, 10; Illinois, 7; Massachusetts and Georgia, each 6; Kentucky, 5; Florida and Virginia, each 4; Connecticut, Indiana, North Carolina, Minnesota, and Tennessee, each 3; Wisconsin, District of Columbia, and Iowa, each 2; Alabama, Colorado, Delaware, California, Kansas, Mississippi, Utah, Texas, West Virginia, Ontario, and Hawaiian Islands, each 1.

The occupations represented were: Teachers, 26; ministers, 14; students, 8; missionaries, 7; at home, 12; kindergartens, 2; clerks, 3; professors, 2; banker, lawyer, merchant, general secretary Y. M. C. A. and Y. W. C. A., superintendent city missionary work, and musician, each 1 representative.

Religious denominations were represented as follows: Presbyterian, 40; Methodist, 30; Congregational, 17; Baptist, 15; Episcopal, 8; United Presbyterians, 4; Friends, 3; Evangelical, 2; Unitarian, 2; Christian, 2; Reformed Collegiate, 1; Dutch Reformed, 1; Reformed, 1; Disciples, 1; Dunkards, 1; United Brethren, 1; Church of God, 1.

There were 12 members of the Chautauqua correspondence college; 31 of the C. L. S. C.; 7 of the teachers' retreat; 12 of other collegiate departments; school of physical education, 2; elocution, 2; Delsarte, 1.

Teachers were present representing the following: Public schools, 6;



private schools, 6; high schools, 2; Yale Law School, Temple, Swarthmore, Wooster, Westminster, and 9 other colleges, each 1. There were many graduates of high schools and colleges present as students during the session.

#### THE TEACHERS' RETREAT.

Every branch of the educational work at Chautauqua is an historic outgrowth of the original (1874) normal training class for Sunday-school teachers, which, as we have seen, still survives. It was natural and necessary that normal work should be extended from religious to secular subjects. The whole art of teaching was better promoted by comprehensive than by one-sided training.

The introduction and development of a pedagogical department at Chautauqua were first accomplished in 1879 under the direction of Dr. J. W. Dickinson, superintendent of education in Massachusetts. Then it was that the so-called "Teachers' Retreat" was instituted. The name was perhaps derived, whether consciously or unconsciously, from the well-known religious custom of nuns and sisters who, from time to time, enjoy in convents what are called "retreats" for spiritual refreshment and renewal under helpful guidance. To one familiar with the Catholic model the contrast between a religious and a pedagogical retreat must at first seem rather violent; but teachers who regard their profession as a high and noble calling will find new inspiration in the academic groves of Chautauqua and discover new spiritual meanings in their withdrawal from active teaching to learn their art anew. Not always in seclusion but sometimes in a busy crowd is there a retreat from the world. The normal hall at Chautauqua, filled with 250 attentive and thoughtful teachers from the United States and Canada, listening to talks by men of insight on the psychology of children, is a very different place from a church or a chapel, but it may be equally good for human souls to be there, and it is perhaps not far from the kingdom of heaven.

In the summer of 1891 I heard Col. Francis W. Parker, principal of the Cook County Normal School at Chicago, lecture to a vast audience of school-teachers upon the unity of all education, and the need of the harmonious development of body, mind, and soul. After the lecture his wife recited Emerson's poem *Each and All*:

All are needed by each one;  
 Nothing is fair or good alone.  
 I thought the sparrow's note from heaven,  
 Singing at dawn on the alder bough;  
 I brought him home, in his nest, at even;  
 He sings the song, but it cheers not now,  
 For I did not bring home the river and sky;  
 He sang to my ear, they sang to my eye.

Colonel Parker is the man who reformed common-school education in Quincy, Mass. The school committee there said of him: "He found



our schools machines; he left them living organisms. He breathed life, growth, and happiness into the schoolroom." It is a great thing to discover how children think and learn, how their minds play and grow amid pleasing natural environments, how the human garden is best perfected by studying nature and returning to her ever anew for guidance and health. The children are learning most and fastest in natural play; their own fancies are in their way as correct as the instincts of savages or the speculations of philosophers. Education is all one process. Mankind must go through it as does the child, the savage, the sage.

In the summer of 1894 Mr. Walter L. Hervey, president of the Teachers' College, New York City, became principal of the teachers retreat at Chautauqua. He gave daily talks and lessons for four weeks upon psychology and pedagogics, supplemented by individual reports of observations of children. Such books were used for reference as James's Briefer Course in Psychology, Preyer's Infant Mind, Tracy's Psychology of Childhood, and G. Stanley Hall's Contents of Children's Minds. A course of public lectures upon psychological subjects was also given by Mr. Hervey, who was thus enabled to represent the character of his work before the Chautauqua Assembly. Twelve general lectures, conferences, and talks were given by the heads of departments and were open to all students in the teachers' retreat. The principal encouraged the teachers to concentrate their work in single departments, where definite work was laid out and a definite aim was attainable.

A corps of ten teachers was associated with the principal for the conduct of various departments, like manual training; English; form, drawing, and color. Three courses were offered in natural science: (1) Physics; (2) botany; (3) geology and mineralogy. In all three attention was paid to methods of teaching as well as to subject-matter. Lectures were given upon the ways and means of developing the scientific spirit among young pupils. Chautauqua has long been efficient in this direction. The class work, object lessons, and geological excursions of Prof. Frederick Starr were particularly successful. His popularity among small boys was unbounded.

One summer there was a Walking Science Club for children, conducted through the groves and fields of Chautauqua by Miss Mary B. Dennis, who taught her young and enthusiastic pupils to observe the leaves of trees, the life of insects, how to catch and preserve the latter, and how to classify plants, flowers, etc. All this was a novel feature of summer study at Chautauqua and was keenly appreciated by small boys and girls.

During the season of 1894 Miss Schryver conducted class excursions for the study of botany and geology. Teachers were taught how to conduct field lessons with children. A good beginning seems to have

been made in Chautauqua vacation classes for children and in boys' classes for manual training.

The statistics of the session show that in 1894 the total number enrolled in the seven courses of the retreat was 186. Of these one-half were in the department of psychology and primary methods, 43 were enrolled in English, 21 in form, drawing, and color, 44 in the three courses in science, and, counting children and teachers, 14 in manual training. Only 10 were enrolled in two departments.

One hundred and five of the members of the retreat were teachers of special subjects; 113 were teachers in public schools, and there was a considerable sprinkling of teachers in normal schools, superintendents, and principals of private schools.

There were 51 Methodists, 46 Presbyterians, 20 Baptists, and members of 13 other denominations.

Pennsylvania sent 49, Ohio and New York each 39, and 27 other States and countries were represented, including Canada and South Africa.

At the closing meeting of the teachers' retreat, August 1, 1894, brief addresses were made by the heads of the five departments and the season's work was reviewed. The following points were emphasized: (1) The plan of specialization which forbids teachers taking too much work; (2) the policy of continuity and development in chosen lines of work; (3) the desirability of small classes; (4) personal contact between teachers and pupils; (5) laboratory work.

#### G. STANLEY HALL AT CHAUTAUQUA.

In July, 1895, the president of Clark University gave a course of five lectures at Chautauqua on child study and biblical teaching. Like his brilliant articles in the *Forum* in the year 1894, these lectures were in themselves a sufficient justification of the new institution at Worcester, Mass., and of all the money that has been expended upon its dominant department of psychology and pedagogics. Only the briefest extracts from the meager general digest, as reported in the *Chautauqua Assembly Herald*, July 29, 1895, can be quoted here:

#### "I.—CHILD STUDY.

"The systematic observation of children began in America in 1879, with the publication of the measurements of the height and weight of several thousand Boston school children, by which it appeared that at about 14 the average American girl was both larger and heavier than the boy, who excelled before and later, but that both were larger than children of other nationalities. From this has developed many very comprehensive studies, showing that growth in height is chiefly in the large bones in the legs, is faster in the spring than in the fall, that the period of most rapid growth is that of least disease, that precocious children are on an average larger than dull children of the same age,

etc. Many more special measurements have been made since, as of hand, face, etc.

"In 1880 was published the first American study of children's minds, based upon my own list of 123 questions applied to 6-year-old children on entering Boston schools. This showed an amazing lack of what children are supposed by primers to know. Large per cents had never seen hen, chicken, robin, sunrise, stars, domestic animals, growing cereals, fruit, common trees and shrubs, etc. This new science of ignorance has been developed in many directions since. Children and moral conceptions have been especially investigated, their idea of God, angels, etc., always associated with physical heavens; their conceptions of punishments, rights, favorite stories, etc., have been specifically investigated. This line of work has made very great progress and children's anger, fears, superstitions, likes and dislikes, dolls, etc., have each been investigated. Their feelings for others, for nature, etc., are also studied. \* \* \*

#### "II.—ADOLESCENCE.

"The more we know of the history of education the more clearly we see that in every age and land its history begins with adolescence. Savages have then their rites and ceremonies of initiation everywhere. The Greek, Russian, Lutheran, Catholic, and Episcopal churches confirm, bringing home their strongest sanctions to aid the new desires, feelings, and passions awakened at this age; most conversions occur at this period; it is a time of physiological regeneration and the point where the soul is vastly deepened by new temptations, desires, feelings, etc. The sense of sin and personal uncleanness is far deeper than at any other time, so that conscience is first brought into full function.

#### "III.—PEDAGOGY OF THE OLD TESTAMENT.

"We need here (1) the professional Bible story-teller. Since print came in this is almost lost, but it has marvelous power in good hands. A good story is a kind of anthem played upon the heart. Thirty-six Old Testament stories, I think, if told professionally, without notes or antiquarian details, would reveal wondrous power. Personally I should not object to a few powerful and venerable stories appealing to reverence for Deity, from the Apocrypha, Targum, Catholic saint legends, Buddhism, and other faiths.

"2. Love of nature should be taught as a basis of appreciating Old Testament ideas. For children the sky is full of angels, God, heaven, etc. All Aryan deities are named from heavenly bodies and clouds. Our hymns are full of celestial imagery. The undevout astronomer or child is mad. Roger Bacon alternated the study of nature and writing of prayers. Bede turned from astronomy to write *Gloria in Excelsis*. Do you personally love nature or are you a stranger and an alien from her sanctities? The relation of nature to the Old Testament is some-

what like that of the latter to the New Testament. In the Old the New lay concealed, in the New the Old stands revealed. \* \* \*

"5. Finally, I hesitate to add a secret and personal conviction that steadily grows upon me as a psychologist, that ritual, forms, and liturgy are essential organs of understanding the Old Testament. Mr. Neale, in his masterly work on the history of church ceremonials, has shown us the best elements of the Greek chorus out of which the Greek drama grew. Ancient sacred dances, the best music and costumes were combined in the processions and forms by which the early church sang and marched to its triumphs at the time when it was spreading fastest through Europe. The new psychology of the emotions shows these are bound up with attitude, gesture, external forms, and even dress in a way we had not expected. At the Musée Guimet, the best school of comparative religions in the world, I attended a Confucian ceremony of the greatest impressiveness, but of which I understood nothing. The new psychology of symbols, and especially that of rhythm, suggests a new pedagogy in this element.

#### "IV.—PEDAGOGY OF THE NEW TESTAMENT.

"Nothing can be more superficial than the hints at these great subjects in an hour. You will see that I place the Old and the New Testaments on slightly different bases pedagogically, and would lay the chief stress on the Old Testament before and the New Testament after adolescence. Not but the New should be taught very early and the Old very late, but the deepest meaning of the New Testament can not be felt till the birth of those emotions that come at puberty. The heart, out of which are the issues of life, the Pauline charity, the higher Eros, is the essence of life.

"I plead from this new, high, and unbiased standpoint of pedagogy for the rescue of this grandest and most divine of all cults called conversion, the new birth, change of heart, to the central position which it once had and should regain in the church. There is something before it and after. It should be a more universal experience, deeper and more regenerating, fuller of the divine life, possible to every soul. There is no other possible way to do this than for many people, carefully, honestly, and prayerfully, to record their own experiences suggested by the syllabi offered to all who desire to make returns, that these may be no less reverently and carefully compared, studied, enlarged, etc. Each individual who will thus answer will, I believe, contribute to the cause of the New Testament in the world.

"We have grown morbid and almost prurient about the supernatural. All the arts and literature, ancient and modern, are full of it; but of the Bible many are ready to say that if Jonah's whale really had a small throat their faith is weakened. The supernatural is the only possible régime and treatment of the heart by which it can be kept—as it always should be—larger than the intellect. If the supernatural did



not exist we should have to invent it for the education of the deeper elements of the soul. The days of Tyndall and the prayer gauge are long since passed, and there is a new spirit of harmony abroad. In Homer, Dante, Plato, in every art, on the stage, in the nursery, the supernatural exists, not only unchallenged, but is psychologically the promise and potency of larger things for the soul. Those who have capacities for growth feel miracles and later know nature. The word supernatural, if it could be changed to supernormal, or even higher natural, would not interfere with the conception of Jesus as the superman, the culmination of the entire organic series.

"The church now needs nothing more than a Neo-Christian movement that shall rescue and develop our academic youth, now everywhere lapsing into indifference. No class of men or women so need the higher influences of Christianity. To them the higher criticism is a godsend. What Matthew Arnold calls *Metabiblia* is the same as the Neo-Christian movement represented by Paul Desjardins, De Vogue, Wagner, and others.

#### "V.—INCREASING THE POWER OF THE BIBLE.

"Modern education almost begins with Pestalozzi's tale 'How Gertrude Teaches Her Children.' It describes the regeneration of a dismal hamlet by a good teacher as the principle by which nations are made great. Fichte lit his torch here and made Germany the strongest State since ancient Rome by becoming the educational State of the world, and France has now imitated her example. Nowhere is research so relentless—nothing has been spared from it, but nothing has been injured.

"The lecturer protested against the fears, panics, and 'phobias' that still beset Christians. Once it was the dread of the Moslem; then of the Catholic, of materialism, of myth, of human nature, of agnosticism, pantheism, and what not. Our faith is feeble; let these all have their full fling; they can do no harm, and the oracles of God burn brighter.

"Self-sacrifice, a self-renunciation, is the moral of all morals, the end of the Bible. Let human nature go in all its faculties and it will end with God, with prayer, and with unselfish devotion. The new psychology is full of this faith and belief."

#### REGENTS' EXAMINATIONS.

Under the provisions of the New York State laws the higher educational department of Chautauqua is designated as an organic part of the University of the State of New York. The regents of the university have established a system of examinations in all academic subjects. Such of these examinations as may be called for are given at Chautauqua at the close of the college session in August, and official pass certificates are issued to those who submit acceptable papers.

The same plan has been adopted in the correspondence department of the college, in which all students are required to pass the regents' examinations. All students who desire examinations at Chautauqua file applications (designating subjects) with the principal on or before July 15.

For several seasons examinations have been held at Chautauqua in studies preparatory to college. The following letter from Prof. J. G. Allen, of the Rochester (N. Y.) high school, shows the results, as officially reported, of the regents' examinations of the University of the State of New York, held at Chautauqua, August 16, 1894:

CHAUTAUQUA, *August 16, 1894.*

DEAR SIR: As a result of the final examinations given by the board of regents of the University of the State of New York, August 15 and 16, at the College of Liberal Arts, I have the honor to report that a larger number of students took these examinations than ever before at this place. There were seventy-three<sup>1</sup> different examinations in fifteen different branches, as follows:

Wednesday, August 15, 1.30 p. m., algebra, 6; plane trigonometry, 3; Latin prose composition, 3; first-year German, 9; first-year French, 4.

Thursday, August 16, 9 a. m., advanced algebra, 2; plane geometry, 3; second-year German, 8; second-year French, 5; Cæsar's Commentaries, 2; Xenophon's Anabasis, 5.

Thursday, August 16, 1.30 p. m., third-year German, 8; third-year French, 6; Homer's Iliad, 5; Virgil's Æneid, 4.

There is no reason why all the departments of the Chautauqua University may not be represented and the students thereof receive the benefit of the regents' examinations in the coming years. Doubtless before another year arrangements will be made whereby the students pursuing higher college subjects may have the benefit of examinations at the close of their term here.

All of which is respectfully submitted.

JNO. G. ALLEN, *Regents' Examiner.*

Bishop JOHN H. VINCENT,

*Chancellor of the Chautauqua University.*

#### SPECIAL CLASSES.

Among the numerous special classes for members for which a fee is paid are the following: Piano, violin, organ, voice, banjo, mandolin, guitar, zither, elocution and oratory, Delsarte's system of symmetrical development, drawing and painting, industrial drawing, china decoration, tapestry painting, water-color designing, wood carving, art of letter writing, photography, school of cookery, phonography, stenography, typewriting, penmanship, bookkeeping, and kindergarten classes.

#### THE NEW ELOCUTION.

For many years Chautauqua had an excellent and practical school of elocution and oratory, conducted by the well-known Professor Cumnock, of the Northwestern University. Hundreds of teachers and clergymen were trained by him to use their voices in ways more natural and more effective in public. Every season public readings in a pleasing variety

<sup>1</sup> In 1893 about 50 persons applied for the regents' examinations.

were given by the Professor in the amphitheater for the entertainment and instruction of the people.

Reading and speaking in easy, agreeable ways are fine arts, and comparatively few persons acquire them either in public or private life. If a college or university man will reflect for a moment upon his own circle of acquaintance, he will realize how few men are really good lecturers, preachers, or debaters; how few students can deliver an original oration or read an essay in a manner that attracts and holds attention; how few persons in ordinary life can even read aloud a novel or a newspaper in a way that will not distress the sick and tire the well. Our schools of oratory often teach men to mouth their words, to rant and bellow rather than to speak as nature meant human beings to speak.

In the summer of 1894 a new school of elocution was organized at Chautauqua, and it is called a "School of Expression." Mr. S. H. Clark, of Chicago University, represents both at Chicago and at Chautauqua the new elocution, which he regards as the basis of the science of pedagogy. The new teaching starts with psychology rather than with mimicry and mouthing. Perception and feeling must precede natural expression. Reading, recitation, declamation, oratory, and acting are viewed simply as interpretations, hence the first importance is attached to literary appreciation. There must be some thought in the mind, some life and feeling in the soul, before a man or woman can truly express anything. All elocution that depends upon mere externals, whether vocal mechanics or pump-handle gestures, is unnatural and artificial. True oratory is like a spring—spontaneous. Mr. Clark lays much stress in his teaching, as does Dr. R. G. Moulton, upon interpretive recitals. Students are incited to penetrate to the inner life, the very heart of poems and plays, and to throw genuine thought and feeling into the art of expression. This was the secret of the wonderful success of Professor Corson, of Cornell University, in rendering Tennyson and Browning, whether to popular or select audiences. He felt what he read.

The amphitheater during the Chautauqua season is one of the best places in the country for the student to observe different styles of reading and oratory. Hither come public men (e. g., Hon. Andrew D. White, Theodore Roosevelt, Carroll D. Wright), preachers (Dr. Edward Everett Hale, Dr. J. M. Buckley, Dr. Frank Gunsaulus, Dr. W. S. Rainsford, Rabbi Gottheil, Ballington Booth), teachers and professors (Henry Drummond, R. G. Moulton, Owen Seaman, Von Holst, Boyesen, M. C. Tyler, George H. Palmer, Dr. Edward Eggleston), college presidents (M. E. Gates, J. W. Bashford, Charles F. Thwing, Alice Freeman Palmer), and a great host of other representative men and women.

#### SCHOOL OF PENMANSHIP AND BUSINESS.

One of the most helpful of the minor schools at Chautauqua is that of Mr. C. R. Wells for teaching penmanship, bookkeeping, and good business methods. The present writer has derived so much practical

benefit from Mr. Wells's instruction that it seems almost a duty to narrate the following bit of personal experience.

One morning at the Atheneum Hotel Mr. Wells was writing upon a large blackboard the lecture announcements for the day. Observing with admiration his rapid and legible writing, I said impulsively: "I would give \$500 if I could write like that."

Mr. Wells laid down his chalk and looked at me in astonishment. "Would you?" he asked. "Yes: I was offered that sum when I was a boy if I would only learn to write a decent hand, but I never could do it. Now I would give that sum myself if I could dispense with typewriters and write half as well as you do."

"Why don't you learn, and save your money?" asked the penman.

"It is too late now," said I.

"It is never too late to mend a bad handwriting," he replied. "Good writing is nothing but a trick, which anyone can learn."

"I don't believe that," said I. "Handwriting reveals character. Good penmen, like poets, are born, not made."

"Nonsense," said Mr. Wells. "I tell you good handwriting is nothing but a muscular trick, and an easy one at that."

"Well," said I, "it is not muscle that I lack, but proper control of my fingers. I have written so much in my awkward way that the process has become actually irksome."

"Let me see you write the word 'Chautauqua,'" said Mr. Wells, giving me a pencil and a bit of paper.

I did it in my best style, and the penman said: "I see. You make your thumb and forefingers do all the work, and you will certainly have 'writer's cramp' if you keep on writing in that way. But you can correct yourself. Let me show you the trick. Sit down at this table, open your hand, and rest the palm flat upon the surface of the table. That is right. Now shove out your forearm from the elbow and move your palm back and forth without stirring your cuff. Good. Now shut your fist and continue the same motion. Right. Now take this pencil lightly between your thumb and two forefingers. Make circles without letting your thumb and fingers do any independent work whatever. Let the whole hand and forearm execute the movement. Keep your thumb and fingers still. Ah, that is harder, but that is the trick. You will learn it. You can not break up the habit of years in a moment, or a day, or a week; but you can do it in time with a few simple exercises."

I saw the point in an instant and determined to learn the trick. I went to Mr. Wells's class rooms, took a few simple lessons, and practiced them diligently for weeks like a schoolboy, until I acquired a free and easy swing, that up-and-down motion of my whole right hand and forearm, without a tremor of the thumb and forefingers. I have since discovered that this is the trick of vertical handwriting which experts are now everywhere urging on hygienic grounds. I have found that



this excellent trick is a cure for tendencies to writer's cramp. Ladies often have this affection without knowing it. I have taught several persons this natural remedy.

Probably I shall never become an elegant penman, but I would not unlearn for \$1,000 the muscular trick which Mr. Wells taught me without money and without price. I had to go to Chautauqua to learn what I ought to have learned when a boy at school. A decent handwriting is really elemental in all education; but many college men of my acquaintance would do well to take a course in reading and spelling as well as in vertical penmanship at Chautauqua before writing an illegible thesis, applying for the degree of doctor of philosophy, and attempting university-extension lectures for the improvement of the American people.

Bookkeeping is also well taught at Chautauqua. Here is another important subject that is practically ignored in the school and college training of many young men and women, who sometimes inherit or assume financial responsibilities for which they are in nowise fitted. The most rudimentary facts regarding the theory and practice of accounts are often unknown to college graduates. I once knew a New York lawyer, a graduate of one of our best New England colleges, who deliberately set to work years after he had obtained a good law practice to master the intricacies of bookkeeping, in order better to grasp the details of certain cases that he had in court. And he did it finally to the confusion of certain witnesses who professed to be experts. The theory of Chautauqua is that it is never too late to learn what one ought to know. It was the theory of old Cato, when he began the study of Greek at the age of 80.

#### AMERICANIZED DELSARTE.

Herbert Spencer says: "We have had something too much of the gospel of work; it is time to preach the gospel of relaxation." This needed doctrine is taught at Chautauqua by Mrs. Emily M. Bishop, assisted by Miss Dorothy Bishop, in the Americanized system of Delsarte culture. This "seeks relaxation, rest, reposefulness, conservation of vital energy, nerve and brain reenforcement, health, symmetrical bodily development, easy and controlled motion, gracefulness, self-control, natural expression." The fundamental principle of the Delsarte system is economy of force. This principle is practically applied to ordinary physical actions, such as breathing, talking, standing, walking, going up and down stairs, rising, sitting, kneeling, etc.

In a lecture given by Mrs. Bishop at Chautauqua (see *Assembly Herald*, August 4, 1893) she said Americanized Delsarte culture is a scientifically arranged series of exercises designed to give the over-worked nervous man or woman such intelligent exercise of the nerves and muscles as will rest the tired body and help the will to regain entire control of its servants. Elsewhere she maintains that American-

ized Delsarte culture teaches vital economy. "Conservation of nerve force is the fundamental principle of this teaching. By the freeing or relaxing exercises nerve tension is removed from the muscles when they are not in use. Nerve force thus drawn from the extremities and exterior muscles is conserved at the nerve centers, giving 'strength at the center, freedom at the surface'—Delsarte's law."

There are in the Delsarte system various rhythmical exercises which exert upon the nervous system a quieting and soothing influence. Violent movements and unnecessary expenditure of force are not encouraged. Easy, graceful motions are taught. Bad physical habits are broken up and easy natural ones established. In her lecture Mrs. Bishop called attention to the simple fact that many writers will clutch a penholder and exert far more nervous force than is actually necessary in writing. This leads to writer's cramp. The same squandering of vital energy is often seen in playing the piano, in working a telegraphic instrument, or in other finger movements, which sometimes lead to partial paralysis or nervous exhaustion from simple waste of energy.

The Delsarte system has proved of great service in connection with the Chautauqua school of expression, elsewhere described under the head of the "New elocution." For mechanical exercises are substituted natural, easy, graceful gestures and bodily movements. Freedom and beauty of expression are sought and attained.

#### MUSEUM OF ART AND ARCHÆOLOGY.

In 1882 Chautauqua formally dedicated a museum for the illustration of biblical archæology and art history. Subscribing to the Egyptian exploration fund, Chautauqua has secured for herself many valuable and original specimens of ancient pottery and other arts. She is the owner of various facsimiles of biblical manuscripts and of an interesting collection of plaster casts—for example, the Rosetta Stone, the Black Obelisk of Shalmaneser II, the Winged Lion and Winged Bull of Nineveh, bas-reliefs of Assyrian and Egyptian gods, the Deluge Tablet, the Moabite Stone, the Siloam Stone, and many other ancient monuments. There is also a large collection of photographs representing ancient, mediæval, and modern periods of art and architecture.

Classes in history occasionally meet at the museum for the better illustration of class lectures. During the assembly season, in the month of August, explanatory and well-attended lectures are given almost daily in the museum by Rev. C. M. Westlake. The secretary is the Rev. J. E. Kittredge, D. D. Illustrated art lectures on sculpture and architecture are given in the amphitheater at Chautauqua by Prof. W. H. Goodyear, of the Brooklyn Institute, whose book on the Renaissance and Modern Art is now used by the Chautauqua Literary and Scientific Circle. Thus art ideas may quicken the American people.

The present museum building at Chautauqua is an unpretentious wooden structure with galleries and is already crowded with illustra-

tions of history and ethnology, as well as of art and archæology. Better classifications and descriptions of material and a larger fireproof building are urgently needed for this growing and popular museum at Chautauqua. Next to libraries and laboratories, museums are among the best agencies for the higher education of the people.

From the very first Chautauqua cultivated the museum idea by intelligent object lessons, models of architecture, relief maps of Palestine and Jerusalem, and exhibitions of interesting objects from Egypt and far-off lands. There has always been a certain oriental coloring about Chautauqua shops and bazars. There used to be an "Oriental House," with a flat roof and lattice work and lounges around the wall. There was once a "Tabernacle," with its Holy of Holies, its altars and brazen vessels, its cherubim and seraphim. But these things, with Noah's ark, oriental lecturers in fez caps, and Arabian camel drivers, have all passed away. The museum is the place where some bizarre objects still linger. A really fine model of the city of Jerusalem, under a kiosk near Palestine Park, was destroyed only a few years ago in a gale of wind, which toppled over great trees and ruined the image of the Holy City; but the ground is now cleared for a beautiful park.

#### PALESTINE PARK.

A striking reminder of the Orient may still be seen at Chautauqua in the great relief map of Palestine. The hilly country is accurately represented, according to the surveys of the Palestine Exploration Society, by mounds of stone and turf extending for 300 feet along the shore of Lake Chautauqua, which serves for the Mediterranean Sea. The Dead Sea, the Jordan Valley, Lake Tiberias, the waters of Merom, Tabor, Hermon, are conspicuous features. All the cities from Dan to Beersheba are represented by miniature towns of painted iron. Joppa, Tyre and Sidon, Jerusalem, Nazareth, and Bethlehem are easily found by the local explorer. Mount Carmel, the pastures of Gilead, and the hills of Moab are favorite seats for Chautauquans at evening when they seek the lake shore to hear the open-air concerts at the pier. Small boys climb the dizzy peaks of Mount Hermon, and thoughtful Sunday-school teachers follow the dangerous path from Jerusalem down to Jericho. The elevations of this great relief map are rather exaggerated by scale in order to bring out clearly the contour of country. It is not quite safe to stroll along the footpaths of Judea, Samaria, and Galilee on a dark night. The lonely traveler may miss his footing and go rolling down into the Jordan or into its upper sources. Frequent lectures on Palestinian geography are given in the month of August to waiting groups of modern pilgrims through this miniature Holy Land. The student will, however, get a much better conception of the physical and historical geography of Palestine from a relief map and wall maps which are always accessible in the museum building. Chautauqua has always been fond of devices for the study of the geography of the Bible. Popular and individual ignorance upon the subject is so profound that



any legitimate agencies for teaching a knowledge of "the Land" as well as of "the Book" deserve to be encouraged.

#### THE BOYS' CLUB.

It is no easy task to employ and amuse the growing number of small boys who come to Chautauqua with their parents for the summer season. Various experiments have been tried, all more or less successful; but at last the management seem to have hit upon just the thing, namely, a boys' club in connection with and under the absolute control of the department of physical culture.

Near the gymnasium, by the lake shore, a large tent has been erected, and there the boys meet for all sorts of juvenile exercises under competent direction. Good leadership is the one essential principle in the training of youth. As in tribes of Indians, so boys, young and old, obey their chiefs or natural leaders and follow them through thick and thin. Boys' standards of honor and conduct are always those of the ring leaders of their tribe or gang. Hence the importance of utilizing authority and the tribal or social instinct among lads for their moral and intellectual improvement. A born leader, with high ideals of fair play and square dealing among boys, can do almost anything with them. For example, an athlete and successful ball player like Capt. A. A. Stagg in straightforward talks to clubs of large and small boys has accomplished wonders in the line of physical, moral, and even religious training. He and other well-known Yale men at Chautauqua are doing fine educational work in this direction.

Dr. Anderson and his assistants in the Chautauqua gymnasium put the boys through a daily military drill, which is one of the very best agencies for teaching habits of order, precision, and quick obedience to authority. Gymnastics and field sports are taught the boys by Yale College men. Swimming lessons are given under perfectly safe conditions. The boys are taught to row boats, splice ropes, tie sailors' knots, and to practice all those useful tricks and accomplishments which rejoice the hearts of young sportsmen and savages. Colonel Parker at Quincy, Chicago, and Chautauqua early showed teachers the importance of utilizing the natural instincts of boys in their education. It is a simple fact that they are savages or barbarians throughout their school and often throughout their college years. Nothing will develop lads faster and better than good physical training under fine personal leadership and under strict Spartan discipline. It used to be a great joy at Chautauqua to see and hear Stagg train boys upon the ball field. No military leader could have received more absolute and ready obedience. Good team work, or good morale, is perhaps the secret of Yale success in athletics. It has certainly been introduced at Chautauqua, and it usually carries the day whether in baseball or boating.

Three nights each week during the season of 1894 members of the Boys' Club were taken in small relays by boat down the lake to Pendergast Creek, where they camped out under the authority of Mr. J. A.



Babbitt or some other experienced leader of mature years. Here, amid the woods along the shores of creek and lake, the small boys have splendid times. Ranging the forest and fishing the streams by day, building camp fires and tenting at night are occupations which fill these young savages with joy. They expressed it, however, in a model academic yell one evening after sunset when a little company of friends with good supplies rowed up the inlet to call upon the camp:

Rah, rah, rah!

Rah, rah, rah!

B. C. ! B. C. !

Chau-tau-qua!

The appearance of the boys' class at the athletic exhibition August 10, 1894, excited favorable comment: "The boys' class—80 strong—filed in, and under the leadership of Mr. H. S. Anderson went through a series of educational gymnastics, the beauty and grace of which called forth a constant storm of applause. The movements were made with excellent precision and reflected great credit upon the thorough work of Mr. Anderson and the class." (*Chautauqua Assembly Herald*, August 11, 1894.)

#### THE GIRLS' CLUB.

In the summer of 1892 a girls' club, called "The Outlook," was organized by Miss Mather, a graduate of Smith College in the class of 1883. She has been for some time intimately associated with the social movement of the Y. W. C. T. U. It should be remembered that the Chautauqua idea and the W. C. T. U. originated at the same time and place, in 1873 at Chautauqua. There is now a strong and practical tendency toward the promotion of temperance by educational, social, and sanitary measures. Miss Mary Mather, of Wilmington, Del., was for some time a leader in organizing health meetings and devising temperance entertainments. Her success in interesting girls in home life and useful social work was phenomenal. She was greatly aided in her work by Miss Alice Smythe, of Wilmington, Del. Miss Agnes Lathe, of the Woman's College of Baltimore, became the leader of the girls' club in the summer of 1895.

The design of The Outlook, as indicated by its name, is to broaden the vision of girls into life and to apply this vision practically in their own environment. To this end topics are discussed relating to the girls themselves, their homes, and their neighbors. The club is not a class or a Sunday school, and has no course of reading; but it is social, helpful, educational, inspirational. Such themes as the following are discussed by leaders and members: "Realism and romanticism in housekeeping;" "Business methods;" "Bread;" "What shall we do with our great-grandmothers" (or how to modify or eliminate heredity); "What to do in the evening;" "Kindergarten glimpses;" "Our intellectual compass;" "The ideal house;" "The ideal guest;" "The ideal hostess." Invited guests sometimes give short talks to the club. One

summer, when Miss Alene M. Skinner, of Marshalltown, was in charge of the club, Miss Jane Adams, of Chicago, described her experience in the Hull House settlement. Mrs. Alice Freeman Palmer spoke of the "Ethics of the schoolroom," likening the teacher's arduous position to that of a mother in her household. Miss Kate F. Kimball, executive secretary of the C. L. S. C., talked to the club on "After graduation." She spoke of the graduate in the school and home, urging deference to parents and consideration and helpfulness to the other members of the family. Her hints on reading were to read biography and to commit to memory poetry. A suggestion to magazine readers was to study illustrations and learn something of the artists. The country girl was urged to start a public library and to weed out the Sunday-school library; the city girl to aid in college settlements, philanthropic associations, working girls' clubs, free kindergartens, the Chautauqua circle.

Receptions, readings, music, and other forms of entertainment have made The Outlook very enjoyable to its members and their friends. The *Woman's Journal*, in a letter from Chautauqua, dated August 20, 1894, says: "The club is now in its third summer, and has a varying membership of from 50 to 200. The conditions of membership are to attend the daily meetings, to pay 10 cents, which goes to defray the expense of the weekly Saturday teas, etc., and to wear the club badge, which is a modest bow of white and pale-green ribbon. As the club is largely social, it is divided into tens, each ten choosing a patron saint, and to these tens is often referred business coming before the club. The patron saints chosen for this year have been Kate Douglas Wiggin, Mrs. Alden ('Pansy,' who lives here), Lady Henry Somerset, Elizabeth Barrett Browning, 'H. H.' (Helen Hunt Jackson), Alice Freeman Palmer, Jean Ingelow, and others. Each ten has its own special device, emblematic, if possible, of the life and work of the woman chosen, and each in turn gives a quotation, the Ingelow circle giving 'It is well for us to be as happy as we can,' and the Palmer circle, 'There is no greatness but goodness; there is nothing lasting but love, for love is the measure of life.'"

One minister's wife went away from a club meeting saying gratefully, "Now I shall know what to do with a lot of girls in our church."

The religious training of boys and girls at Chautauqua is provided for in the various Sunday schools. The boys' and girls' class meets daily during the first fortnight in August for the study of Bible geography and history.

Chancellor Vincent occasionally talks to the Girls' Club. At one meeting in their clubroom in the Presbyterian House he urged greater concentration. "Take one thing and center your attention and power upon it. Do it magnificently. Attempt few things, but do them well. Woman's greatest power as a rule is in the home life, in the kitchen, nursery, parlor, and church parlors. Any emancipation of women which leads them to despise domestic duties is slavery for both men

and society. Patience, gentleness, forbearance, tenderness are to woman like jewels. Get ready for good homes. Nothing is needed so much as wifely, skillful women."

The Outlook now enjoys spacious accommodations in the new building called the Higgins Memorial Hall, erected for special work and classes in social science or applied sociology. Speaking of this new building dedicated August 14, 1895, the Assembly Herald of that date said editorially:

"While the building adds another hall for services, lectures, and social meetings, it is to find its largest usefulness in the service of young girls. It is to be their social home while sojourning in our summer city, their school, library, drawing room, and cosy corner where they can sit apart in girlish quiet and seclusion. Some one once said that children were discovered only about fifty years ago. The young girl discovered herself hardly five years ago. The woman-child is the coming woman, wise above all her sisters, strong, vigorous, not afraid of the fine education of oar and wheel, touched with the inspiration of the arts—and yet a woman. The clubable girl is with us, her clear, brave eyes looking forward to a new girl life, knowing and using the education, refinement, and unselfish humanity a girls' club can give her in all sweetness and maidenly dignity. The Girls' Club has completely overturned the old definition of club life. Higgins Memorial Hall is to be the coming Chautauqua girls' clubhouse. Its solid walls will typify to her the permanence and dignity of home and home life, its fireside corner the sweet companionship of home. Its Gothic roof will suggest that broader spirit that will some day invite her to the life of the club, the church, and society."

#### WOMAN'S WORK AT CHAUTAUQUA.

From the beginning women have taken a prominent part in the educational work of Chautauqua. Coeducation has always prevailed, and probably the majority of pupils in most departments of instruction are ladies. Male teachers and professors are chiefly employed in the college work and in the schools of sacred literature, but women are prominent in many specialized branches of teaching, especially those relating to children and the domestic or household arts. There is at Chautauqua a house called the "Jewett Home" for women teachers and those preparing to teach. It is under the management of Dr. W. A. Duncan, secretary of the assembly, and will accommodate thirty or forty guests, who manage their own housekeeping upon a cooperative and inexpensive plan.

There is one building, the Kellogg Memorial, entirely devoted to woman's work. Upon the first floor is the kindergarten, elsewhere described. On the same floor are the parlors of the Woman's Christian Temperance Union. On the floor above is the department of china painting. Water-color designing and tapestry painting are also encouraged. An excellent school of wood carving still flourishes at



Chautauqua under feminine management. Constructive and free-hand drawing and the designing of ornaments are well taught by ladies. For many years a school of cookery has been maintained at Chautauqua by Mrs. Emma P. Ewing, who often gives public lectures upon this important art. The Delsarte classes conducted by Mrs. Emily M. Bishop and her assistants are deservedly popular. The Woman's Club holds frequent morning sessions, under the guidance of Mrs. Emily Huntington Miller, for the discussion of household economics, social ethics, health, and missionary and temperance work.

Speaking of woman's work at Chautauqua, Mrs. Emily Huntington Miller says:

"As the tendency of Chautauqua seems to be more and more to unite in special departments associated lines of study and research, we find the latest outgrowth of its wisdom to be an attempt to organize what may be specifically called 'woman's work,' so as to present without conflict its various interests. Woman's missionary work, both home and foreign; the temperance reform, especially in its fundamental educational work; all that pertains to home and home making; questions of dress and family economics, the physical care and training of children, their intellectual, moral, and religious education; the administration of charities and methods of permanent help to the ignorant; familiar lectures to mothers upon the care of their own bodies; talks upon the selection and preparation of food, and systematic lessons in cooking—these and kindred topics held last year the attention of the Woman's Club. Such work must tell upon the home life. It gives new insight into methods; it awakens thought and stimulates research; it gives to women a consciousness of mutual aim and interest; it tends to the harmonious development of character.

"If the Chautauqua movement has been a special boon to one class more than another, it has been to the women, and especially the mothers of America. The zest and eagerness with which they welcomed and entered upon its course of study, and the rapidity with which its circles widened and multiplied, must have been a surprise even to the prophetic vision of its originator, and is sufficient demonstration of need and adaptation.

"Who can estimate what the sense of comradeship and association with others has been to women whose lives are necessarily isolated? They had gone on thinking their own thoughts and bearing their own burdens, regretfully conscious that they were dropping out of sympathy with intellectual life and progress, yet seeing no escape, until suddenly a hand reached out to clasp theirs. They were drawn into a magic circle that brought them into fellowship with thousands of others, all listening to the same truths and pondering the same questions, and they found in the companionship help and strength. Many a lip that had long been conscious of thirst found satisfaction in the fresh draft presented to it; many a soul has been awakened to a new sense of



delight by the rousing of dormant powers and the developing of unsuspected resources in itself.

"Intelligent young women are employed to a large extent in all the office work of Chautauqua and in the business management at the rooms of the C. L. S. C. and of the Chautauqua Assembly Herald. Miss Kate F. Kimball has long been the executive secretary of that vast nexus of local reading circles and her numerous assistants at Buffalo are clever young women, some of them graduates of our best schools and colleges. Miss Chamberlin is the executive secretary of the College of Liberal Arts and is assisted by college graduates. She is also secretary of the American Institute of Sacred Literature. Chautauqua experience in the employment of women for expert service in offices has proved of great advantage to the rising University of Chicago under the efficient direction of President W. R. Harper, who is also principal of the Chautauqua system."

#### CONSTITUTION OF THE CHAUTAUQUA WOMAN'S CLUB.

[Mrs. Emily Huntington Miller, president.]

ARTICLE 1. This association shall be called the Chautauqua Woman's Club.

ART. 2. It shall be a department of the Chautauqua Assembly, its president shall be appointed by the assembly authorities, and its work carried on in harmony with their plans.

ART. 3. Its objects shall be self-improvement, mutual help, fullness and preparation for better work along those lines of special interest to women as home-makers.

ART. 4. Its work shall be carried on by conferences, public addresses, reading and study, and shall be divided into the following departments: Household economics, health and hygiene, education, social ethics, philanthropy, and reform.

ART. 5. Its officers shall be a president, secretary and treasurer, and five vice-presidents, who shall constitute an executive board for the transaction of business.

ART. 6. The officers, with the exception of the president, shall be elected annually by ballot at a special meeting of the club, and shall continue in office until their successors are elected.

ART. 7. It shall be the duty of the executive committee to prepare and present to the club before the close of its yearly session an outline of work for the following year.

ART. 8. Any woman interested in the objects of this association may become a member by subscribing to the constitution and paying an annual fee of 25 cents.

ART. 9. Woman's clubs organized for similar purposes in the Chautauqua assemblies, or those hereafter organized, may, upon application, receive the plan of work and be recognized as associated chapters. Such chapters may send delegates to the sessions at Chautauqua, who shall be recognized as members of the club.

*Outline of work—session of 1893.*

I.—Parliamentary law, two sessions; coeducation, discussion; the art of conversation; table talk; social customs and courtesies; laws and duties of hospitality; physical training at home; dressing for comfort; home nursing; practical sanitation; what woman owes to herself; fairs, festivals, and follies; young people's societies; girls and other girls; home reading and study; Sunday at home; industrial training for girls; manual training in our public schools.

II.—Missionary conferences: (1) The missionary spirit, the life of all church effort; (2) news from mission fields at home and abroad; (3) how to organize and conduct societies; (4) training and work for children.

III.—Temperance conferences: Temperance work for children (*a*) in the home, (*b*) in the L. T. L., (*c*) in the public school; temperance work for young ladies—what to do and how to do it; alcoholics in medicines.

## THE KINDERGARTEN.

One morning I visited the Chautauqua kindergarten and was delighted with the gracious, winning manners of the teachers and the quick responsive ways of the little children as they bowed and courtesied, advanced, retreated, and circled around in beautiful rhythmic motions, all intent upon action and all unconscious of self. Then, for the first time in my life, I obtained a glimpse into the new heaven of child nature when properly cultivated in a kindergarten.

"Fifty sweet child faces, twice fifty tiny busy hands and nimble feet tripping in 'pretty, pleasant play.' If the ghost of Frederick Froebel could take the place of his picture on the walls of the kindergarten room at Kellogg Hall, it would pray to be reembodyed that it might express its gratification that the principles he formulated are accomplishing so much. Under Miss Newton's care these tender human plants grow fair and symmetrical. The teaching looks to a kindly nurturing of mind and body and true character building. The "Walk and talk" man followed with a keen interest the thread of unity which runs through it all. Water is the subject for the season. Every exercise of scissors or pencil, each play and amusement, relates to it. In their rambles together through the grounds the classes investigate it. The five-year-olds visit a locomotive at the station and study steam. The four-year-olds learn the uses of ice from refrigerators. They are taught to use their senses, to analyze, to investigate.

"I learned from Miss Frances E. Newton that there are over thirty teachers in the kindergarten training class, a larger number than ever before. More children, too, desire to enter the kindergarten than accommodations will allow. Referring to the kindergarten work of the country, Miss Newton said that it is bound to come into the public-school system, although it would not be for the best interest of the kinder-

garten to become so. The pinch of the machinery would injure its freedom and the spiritual investiture which is now its glory. Miss Newton has taught the work here five years. She will, during the coming year, be one of the faculty of the Kindergarten Institute, Chicago, which is cooperative with the social settlement of the University of Chicago." ("Walks and talks," see Chautauqua Assembly Herald, August 4, 1894.)

#### CHAUTAUQUA EXTENSION LECTURES.

The following general statement is taken from the report on the Chautauqua System of Education, prepared for the educational exhibit of the World's Columbian Exposition:

"The Chautauqua extension lecture plan is a modified form of university extension, adapted to the needs of all communities which do not support a regular university extension course. The details of the plan, as carried out during the winter of 1892-93, included a single course of six lectures on Greek social life, prepared by Prof. Owen Seaman, a graduate of Cambridge, England. Any community desiring to give the course was provided with general announcements, course tickets to be sold at 50 cents each, a 16-page syllabus for every ticket holder, and the six lectures printed in large, clear type. The syllabus contained a full outline of each lecture, a list of recommended books, and questions to be used as a quiz. Each community provided its own reader and a competent person to conduct the quiz. No financial risk was incurred, as the Chautauqua office required only one-half of the gross receipts (in no case to exceed \$25). More than seventy courses were given during the winter of 1892-93.

"Additional courses were prepared for 1893-94:

"Social sciences, by Prof. A. W. Small, of University of Chicago.

"The Bible, by President W. R. Harper, of Chicago.

"Poetry of Browning, by Prof. Owen Seaman, Cambridge.

"Great periods of mediæval history and art, by William H. Good-year, Brooklyn Institute."

An interesting report of progress from the pen of Miss Kate F. Kimball appears in her report of the work of the Chautauqua Literary and Scientific Circle for 1893-94 (see Chautauqua Assembly Herald, August 23, 1894):

"The Chautauqua extension lecture plan which was inaugurated so successfully in the fall of 1892 has met with equal acceptance during the past year. It will be remembered that by this plan courses of lectures prepared by university professors were furnished in typewritten form to any community wishing to give such a course. Tickets and announcements were also provided, the latter for general distribution, the former to be sold at 50 cents each. Every ticket holder was given a printed syllabus covering the entire course, and in the necessary absence of the lecturer himself the lectures were read by some member of the commu-



nity. One half of the proceeds was retained and the remaining half paid to the Chautauqua office. In 1892-93 70 courses were given, and during the past year, in spite of the prevailing financial distress, the record has been equally good, the courses reaching in all about 3,000 people. More than 50 communities used the lectures on "Social science," by Prof. A. W. Small, of the University of Chicago. Six made use of those on "Great periods of mediæval history and art," by Professor Goodyear, of the Brooklyn Institute. Five took "Greek social life," and two the "Poetry and teaching of Robert Browning," by Owen Seaman, of Cambridge, England. The lectures were given under the auspices of a great variety of organizations—Chautauqua circles, Epworth leagues and Christian Endeavor societies, Y. M. C. A.'s, women's clubs, and other literary associations. Wherever possible, persons of special ability were secured to present the lectures, and in other cases the lectures were read by club or circle members. In 30 communities the course was followed by a quiz or discussion. In many cases the lectures were given in churches, but public halls, clubrooms, and private parlors were also utilized. Twenty-three States were represented, including an area from New England to California, Montana to Texas.

"In a small Massachusetts town two college graduates, representing Wellesley and Vassar, undertook the course in social science for the benefit of the community. The lectures were given as a parlor course, with an average attendance of 25, and the following report was received from this center: 'The lectures have been a great success and just what the people needed to arouse them. Chautauqua is doing a wonderfully good work in enabling people of all sorts and conditions to come in touch with the best thought.' Out in a small Nebraska town 40 tickets were sold for a similar course, and the secretary writes: 'They were a rare treat to us who do not often have an opportunity to hear a lecture.' A political economy club in Ohio gave the lectures as part of their regular work. A debating club of young men in Delaware took up the study of Professor Ely's Outlines of Economics in connection with the lectures. A Congregational minister in Connecticut who enlisted 40 people in the study of the course writes: 'Sunday evening I studied with my young people by the aid of a blackboard and map society on 2 miles of country road, 15 miles from any railroad. Results were very apparent and I am sure all present drew lessons which they will not soon forget.' In another Connecticut town the course was very appropriately given for the benefit of home missions, and the report gives the following facts: 'We have sold 51 tickets for the social science lectures and have had a very delightful time, meeting in the parlors of private residences. The fourth and sixth lectures were particularly fine. The last lecture and discussion were a crowning success. There were professional men and manufacturers in attendance, and at 11 o'clock the people were sorry to go home.' A considerable number of the courses were given under the auspices of Chautauqua circles. In a Vermont town where the lectures were given a year ago a circle was organized as a result of the interest thus awakened and a part of the proceeds



of the course was devoted to a set of books for the use of the society. The Chautauqua unions of Jersey City, New York City, and Buffalo also made use of the course in social science. In Buffalo each lecture was given in a different church, so that the course as a whole touched many elements in the community. The average attendance was about 300, and both workingmen and employers took part in the discussions.

"The Browning lectures were given under the auspices of two clubs in Harrisburg, Pa., and Topeka, Kans. The president of the former wrote: 'Our club has enjoyed the lectures very much indeed. Every member is enthusiastic over them. They have been a most admirable introduction to Browning and we are all stimulated to do independent work in the writings of the poet ourselves.' In Topeka the lectures were given under the auspices of the Friends in Council. About 100 persons attended the lectures, which met with hearty appreciation both from students of Browning and also those who were making their first real acquaintance with his works.

"The success of this important feature of the work of the C. L. S. C. will make it possible to extend the plan indefinitely by the addition of courses adapted to the needs of many different classes of people."

#### THE COMPLETE CHAUTAUQUA SYSTEM.

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|---|---|--|---|---|
| The Chautauqua system.                              | Home reading and study.   | (a) The Chautauqua Literary and Scientific Circle.—A four-years course of general reading. [Certificate granted. Does not count for degree.] |   |   |
|   |   | (b) Specialized courses for continued reading and study. [Certificate. Does not count for a degree.]   |   | History.<br>Literature.<br>Science.<br>Art.<br>Pedagogy. Teachers' Reading Union.   |
| Summer study and rational recreation at Chautauqua. | Home reading and study.   | (c) School of theology.—Correspondence instruction. [Degree B. D.] Rigid examinations personally supervised. [No honorary degrees.]          |   | (1) Hebrew and Old Testament.<br>(2) Greek and New Testament.<br>(3) Biblical and doctrinal theology.<br>(4) Ecclesiastical history.<br>(5) Homiletics and pastoral theology.<br>(6) Christian science, life, and literature. |
|   |   | (d) College of Liberal Arts.—Correspondence instruction in preparatory and college studies. [Degrees of B. A., etc.]                         | Latin, Greek, French, German, English, mathematics, psychology, political economy, history, physical science, geology, and biology. | Sixteen courses and rigid personally supervised examinations are required to secure the degrees B. A. or B. S.  |
|   | (e) University extension.—Lecture courses on all college and university subjects. Specially arranged for each locality desiring them. |  |   |   |
| Summer study and rational recreation at Chautauqua. | Home reading and study.   | (a) College of Liberal Arts. [No degrees except through correspondence department.]  |   | Personal instruction by well-known men in all departments mentioned under (d) above.  |
|   |   | (b) School of methods in teaching.   |   | Psychology.<br>Pedagogical principles.<br>Applications and methods.   |
|   |   | (c) Schools of sacred literature. Study of the Bible as a great classic and inspired book.   |   |   |
|   |   | (d) Classes in art, music, physical culture, elocution, kindergarten, etc.   |   |   |
|   |   | (e) Lecture courses on the university extension model.   |   | Progressive courses by one lecturer. No extra fee is charged. The attendance is large.  |
|   |   | (f) Public lectures and addresses by men and women prominent in various departments of life.   |   |   |
|   | (g) Recreative and æsthetic elements, concerts, dramatic recitals, stereopticon entertainments, etc.                                  |  |   |   |

## THE CHAUTAUQUAN.

The literary organ of Chautauqua is now a monthly magazine, called *The Chautauquan*. It is of the same size as the *Century Magazine*, and is published at Meadville, Pa., by Theodore L. Flood, the editor and proprietor. He deserves all the success he has won in this enterprise, for he alone, in the days of Chautauqua's weakness, had the courage to assume the financial responsibility of publishing the needed educational matériel for the C. L. S. C. Beginning experimentally, Dr. Flood has gradually widened the scope of the magazine and so improved its literary character and appearance that it now is the successful rival of some of the leading popular magazines.

The Chautauquan commands writers of the best talent and reputation in the educational fields cultivated by its readers. English as well as American authors contribute to its columns. The late Prof. Edward A. Freeman wrote for it a long series of historical articles. Among the contributors for the current volume, 1895-96, are Prof. John W. Burgess, of Columbia College, on the Constitution of the United States; Prof. N. S. Shaler, of Harvard University, on geological subjects; Profs. Albert S. Cook, of Yale, and L. A. Sherman, of the University of Nebraska, on literary themes; Prof. A. B. Hart, of Harvard, and Prof. Henry E. Bourne, of Western Reserve University, on historical topics.

In addition to the required readings for members of the C. L. S. C., *The Chautauquan* contains each month a variety of general reading of an instructive character, special departments called the "Woman's council table," the "Editor's outlook," "Current history and opinion," "Talks about books," and specific directions and instructions for the guidance of the C. L. S. C.

## THE CHAUTAUQUA ASSEMBLY HERALD.

After the season has fairly opened at Chautauqua a daily newspaper called the *Chautauqua Assembly Herald* is published on the grounds. A preliminary issue contains the entire programme and appointments for the season. The regular issues contain reports of lectures, addresses, conferences, concerts, readings, receptions, entertainments, in short the news and history of Chautauqua from day to day. There are short editorials on topics of special interest to visitors and residents, with personals, "Walks and talks," and the drift of the day. Twenty volumes of this *Assembly Herald* have now been published, and they are one of the best sources of information regarding the history of the great summer school on Chautauqua Lake. They are the abstract and brief chronicle of the whole work. The files are really of great practical value to teachers as well as students, for the columns contain digests of all the best things said and done in this great summer rendezvous of educators and specialists. It is no slight privilege to have good reports of such admirable educational talks as those given by

President G. Stanley Hall in the summer of 1895, or of the various lectures that season by Principal Fairbairn, John Fiske, Dr. Edward Everett Hale, and Prof. R. G. Moulton.

#### THE CHAUTAUQUA CENTURY PRESS.

For some years the text-books and publications designed for the C. L. S. C. were issued by Hunt & Eaton, or the Methodist Book Concern, in New York City. A few years ago the Chautauqua Press was organized, with headquarters in New York City. This organization is now known as the Chautauqua Century Press, with headquarters at Meadville, Pa., but with a New York office at 150 Fifth avenue. From this press proceeds the Chautauqua Reading Circle literature, not only the regular annual series of required text-books, but a great variety of general literature used in connection with the various courses. In former years it was not unusual for Chautauqua to adopt certain books issued by great publishing houses and to secure from them special editions for Chautauqua readers. The amount of good literature which has been put into popular circulation in these ways is beyond all present estimate.

#### BISHOP VINCENT.

An excellent article, by Miss Ida Tarbell, on Bishop Vincent and his work, appeared in McClure's Magazine for August, 1895. It appears that he is descended from a Huguenot family which was driven to America by the revocation of the edict of Nantes. He was born in Alabama, February 23, 1832, and was early consecrated to the Christian ministry, which for him embraced not only the Gospel, but the ministry of higher popular education. He owed much to the early influence of his mother, and has recorded in a little memorial volume the following words: "My mother was an incarnation of consistency, fidelity, self-sacrifice, and serenity. I never heard her speak one harsh or foolish word."

From Alabama the Vincent family removed to Pennsylvania when the boy was only 6 years old. He was educated at home and in the best schools of his neighborhood. Good reading, close communion with nature, and association with people older and wiser than himself early matured his mind and judgment. He became a school-teacher at 15 and a minister at 18. He traveled on circuits, read eagerly, and determined to devote his whole life to liberal studies in connection with his ministerial labors. Not having enjoyed a college education, he sought to secure the equivalent by private study, special teachers in Greek and Hebrew and other subjects, and by foreign travel. His whole life has been for him an educational process. Books, men, nature have been his constant companions. The Chautauqua system of popular education is the historic outgrowth of an intensely human experience and of a practical knowledge of what the American people need.



In an article on Chautauqua, its aims and influence, published in the Forum, August, 1895, Prof. Albert S. Cook, of Yale University, thus speaks of one of the two founders of this great educational democracy:

"No account of Chautauqua would be complete without a word concerning the very pulse of the machine, John H. Vincent. On February 23, 1895, he was 63 years of age. In early life he became aware that he had an intellect and longed for culture; but he also had a conscience, and, with the views of life that had been instilled into him, gave up his dreams of college and betook himself to the work of the ministry. Though successful in this, he never ceased to educate himself by every means in his power, and pursued his own C. L. S. C. course long before he recommended a similar, though much less severe, one to others. Finally he arrived at the reconciliation of the two things—culture and religion—which he had been wont to think alien, if not antagonistic. He came to recognize God in nature and in human life as well as in the Bible. The reconciliation thus effected in his own soul is expressed in the motto inscribed on the banner of the C. L. S. C.: 'We study the word and the works of God.' He is spiritually minded, but possessed of an extraordinary fund of common sense. Patient, indefatigable, and decisive as an executive, he is winning and magnetic before an audience. He is a man of the people, and his heart goes out to them; he tickles them with his humor, warms them by his greeting, draws them by his sympathy, and fires them with his ideals. He is not only receptive of advice, but seeks it from every source. He aims to be the channel through which humane impulses shall accomplish their beneficent work. He is two men in one. As an organizer of victory, he has some of the characteristics of Napoleon. Yet he might equally be compared with such founders of mediæval brotherhoods as Benedict or Francis of Assisi. Comparisons like these must not, of course, be pressed. It is merely that certain qualities in him suggest their consummate embodiment in such celebrated names. More often I think of him in the same breath with Lincoln. 'God must love the plain people, he has made so many of them,' is a sentiment ascribed to the great President, and it is one that would sound equally appropriate in the mouth of the good bishop. Lincoln knew how to bide his time and not prematurely advance the day of great things. Lincoln relaxed the severity of duty with the kindly play of humor, and his approach to the people was largely through this channel. Habitually serene and good natured, he could be stern and resolute at need. In all these respects I trace a likeness between the two men. It was given to both to be in some sense, in different measure, it is true, the conduits of destiny, or, as they would have preferred to say, of Providence. Both will be remembered for their patriotism, their humanity, their catholicity, for both have borne, though under different circumstances and in different degrees, the burden of a people struggling upward, painfully and with many checks, to a serener vision and a larger life."



*Some of his views.*—At the fourteenth annual commencement at Chautauqua, August 21, 1895, after a noble oration to the graduating class by Mr. Hamilton W. Mabie, editor of the *The Outlook*, Chancellor Vincent made a few impromptu remarks, all the more characteristic because unstudied, and expressive of some of the deepest and final convictions of the educational leader of Chautauqua:

"I do not intend to make a protracted address. We had a good, solid, brilliant address this morning, to be long remembered for the emphasis which it placed on life and on character; for the emphasis which it placed on the educating power of simply being, for God is our teacher all the while. \* \* \*

"I said to myself, there are two or three things which we must be after. We must first of all pursue our course of reading, whatever it may be—professional reading by those engaged in professional lines, Chautauqua reading by those engaged as members of the C. L. S. C.; but, secondly, in connection with this, we must all begin to read some of the literature to which Mr. Mabie referred as the literature of life, by which we may be guided in the study of character, by which we may be brought into sympathy with those profound realities of human experience which we may all enjoy, and by which we may be uplifted and strengthened. We must read works of fiction, because that will bring before us, stimulating the imagination, creating ideals, warming the heart, making the will firm in purpose, the books which will give us deeper insight into life. But, thirdly, with our professional reading, with our special reading for the benefit of the imagination and the enrichment of the ideal, we must ourselves have experience in life and in the things which make for true life. It is one thing to read a book, it is one thing to hear a sermon, it is another thing to live out in personal experience the truth of the book or the truth of the sermon. Therefore, in my home, in my family, in my business with my neighbors every day, whether conditions are favorable or unfavorable, I must make bold war against myself and sin, and do my level best to be right and to help my fellow-men to be right."

#### OPINIONS OF CHAUTAUQUA.

[James A. Garfield.]

It has been the struggle of the world to get more leisure, but it was left for Chautauqua to show how to use it.

[William Cullen Bryant.]

I perceive this important advantage in the proposed organization, namely, that those who engage in it will mutually encourage each other. It will give the members a common pursuit, which always begets a feeling of brotherhood. They will have a common topic of conversation and discussion, and the consequence will be that many who, if they stood alone, might grow weary of the studies which are

recommended to them will be incited to perseverance by the interest which they see others taking in them. It may happen in rare instances that a person of eminent mental endowments which otherwise might have remained uncultivated and unknown will be stimulated in this manner to diligence and put forth unexpected powers, and, passing rapidly beyond the rest, become greatly distinguished and take a place among the luminaries of the age.

I shall be interested to watch, during the little space of life which may yet remain to me, the progress and results of the plan which has drawn from me this letter.

[Rev. Howard Crosby, D. D.]

Your scheme to induce business men and others to pursue useful courses of reading in science and history is worthy of all commendation. While we can not expect to make such persons scientists or scholars, we may expect them to become appreciative of things scientific and scholarly, and to be able to discriminate between the false and the true.

[Rev. John Henry Barrows, D. D.]

What John Calvin did for the higher education it will yet be seen that John H. Vincent accomplished for popular education.

[Rev. David Swing.]

The work improved upon a nearer view and a more careful study. With such a man as Bishop Vincent to lead the army, Chautauqua awakens, inspires, and transforms thousands of persons. It makes the young more thoughtful and makes education continue through life.

[Rev. Edward Everett Hale, D. D.]

After the general system of public school instruction, the Chautauqua system is the most important organized system of education at work in the nation. I see no reason why its range should not be extended much further. Indeed, I look to it for the accomplishment of John Adams's hope that every man and every woman in the nation might receive a liberal education.

[Rev. Lyman Abbott, D. D.]

No man in this country has done more to promote good habits of reading and thinking and resultant breadth of intelligence, and especially largeness of home culture, than Dr. John H. Vincent. The essential characteristic of the Chautauqua idea is the possibility of giving to those who can not take the collegiate education something of the collegiate horizon-largeness of view to those whom thoroughness of knowledge is impossible. This ideal has been more or less realized through Dr. Vincent in innumerable homes.

[Rev. John Hall, D. D.]

The place is attractive; the atmosphere is healthy; the arrangements are sensible; the variety of subjects touched is large, and many people, at less cost than they expend on ordinary summer vacation, can there enjoy intellectual, moral, and religious means of improvement of a high order. Bishop Vincent there, as elsewhere, has done much good.

[Phillips Brooks.<sup>1</sup>]

I am much interested in Chautauqua, and value very highly the work which it has done and is doing and will do for our people.

[Prof. H. H. Boyesen, Columbia College, New York City.]

I am a strong believer in the Chautauqua movement. It brings the light of knowledge and higher interests to thousands, nay hundreds of thousands, who have had scant opportunities for culture in childhood and youth. It elevates and dignifies their lives, lifting them out of the dull routine of soul-crippling toil and giving them an appreciation of spiritual and intellectual value. The intellectual activity into which they are stimulated through the agency of the Chautauqua lectures, books, and periodicals is making itself felt as a power for good in many communities throughout the land.

[Rt. Rev. Boyd Vincent.]

Fifty years ago Thomas Carlyle said: "The true university of these days is a collection of books." It seemed a most paradoxical statement right in the face of all existing ideas and facts. Universities had always been collections of men, of professors and students. Thirty thousand students went to hear Abelard lecture. "Give me President Mark Hopkins sitting at one end of a log and myself at the other," said a Williams College student, "and I have all the university I want." But Carlyle was right, after all. "The facility of getting books, the facility of distributing the knowledge of books, has changed the whole conditions of the business from top to bottom." His paradox has already become a reality, combining both advantages in one, and its name is Chautauqua—"the Chautauqua university system of education." I glory in it for my own name's sake. I rejoice in it for the sake of every fellow American. (Sermon at Chautauqua, August 6, 1893.)

[Dr. Edward Eggleston.]

I think Chautauqua was the beginning, perhaps, of that extraordinary intellectual movement that has been agitating the people all over

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<sup>1</sup>One who heard Phillips Brooks preach at Chautauqua writes: "Those of us who were at Chautauqua in 1888 and heard that wonderful sermon by Phillips Brooks on Christ the Perfector of Humanity will never forget it. I remember very well the testimony of a prominent Englishman who sat by my side during the service. Said I to him: 'What do you think of that sermon?' Said he: 'I don't know what to think. I am stunned, overwhelmed. I have heard all of our great preachers, Liddon, Spurgeon, Newman Hall, etc., but I never heard anything like that.'"

this country and Europe. I do not know any other country in the world where so many grown people are seeking to improve their minds as in this country to-day. \* \* \* There are two forms of intellectual activity. There is that for which Bishop Hurst stands in the building of the great university at Washington. The university stands for the acquisition of knowledge. Chautauqua stands as the great diffuser of knowledge \* \* \* in a democratic way, to the busy people who can not and never could go to the university. That is a magnificent idea, and it is magnificently realized in some ways to-day; that diffusion is taking place through our country, and that diffusion reacts again upon scholarship. (Recognition day, August 23, 1893.)

[A. M. Fairbairn, principal Mansfield Colleg. Oxford.]

Bishop Vincent's work at Chautauqua seems to me wise, statesman-like, and beneficent. It is only the most superficial who fail to see into the heart of things that can speak of it with disrespect. It does not profess to be a substitute for academic culture or the higher education, but it does profess to regulate the reading of thousands and to direct into useful and thoroughly helpful channels intellects and interests that would be wasted by either dispersion, undue distribution, or neglect. If out of 60,000 readers controlled more or less by Chautauqua 10,000 could have selected their own literature, 50,000 at least would have simply, by miscellaneous and discursive and often idle reading, wasted their time and still more dispersed their intelligence. Bishop Vincent, by guiding their reading for a few years, helps to form habits of study, guides them in wide selection of books, and enables them, instead of merely using fiction to fill a vacant hour, to use literature to furnish the mind. Chautauqua is an attempt to carry educative, religious literature into the homes and into the hearts of the people. It was a magnanimous enterprise to attempt; the success that has come to it has been thoroughly well-deserved, and there is no man I more gladly salute with honor. The men who from this side have visited Chautauqua have come away impressed with the work it does. It does not profess to be a university in the English or European sense, and no man would measure it by such a standard, but what it seeks to do no university here has ever thought of doing. \* \* \* I hail Chautauqua as one of the great means of spiritualizing America, of creating within it a people devoted to high ends, to holy purposes, to rich aspirations. May it multiply and grow, and out of the high ends, the readings, and the studies may a new, great, moral, and spiritual people grow up, and in those days the name of Bishop Vincent will not be forgotten.

[William R. Harper, president of University of Chicago.]

I have been intimately connected with the details of the Chautauqua work. I have had the best possible opportunities for discovering its weak as well as its strong points. I have come in contact with all the different classes of students and readers who have come under the



influence of the Chautauqua instruction. Still further, I have been in a position to judge of the spirit of the work, whether looked at from the point of view of the management or of those who have been assisted, and I have become thoroughly acquainted with the principles underlying the movement. I mention these things in order to show that, although an outsider, I speak with a knowledge of the facts which only one from the inside could possess.

The work inaugurated by Bishop Vincent and Mr. Miller has, in my opinion, already exerted an influence beyond all possible estimate. This influence, while primarily of an intellectual character, has been also in the truest sense moral and religious. The movement has exerted in a thousand ways an indirect influence which can not possibly be indicated, although it can very clearly be felt. That it has been in any sense a rival of any kind of intellectual work is absurd. On the other hand, it has supplemented intellectual work already being done, has led many to undertake a higher grade of intellectual work, and has imbued the minds of multitudes with a desire for intellectual discipline, the thought of which had not before entered their minds. That Chautauqua in the future will become more and more a power can not for a moment be doubted. (Mail and Express, February 22, 1890.)

[Dr. J. L. Hurlbut.]

There are two things that have brought me to Chautauqua. There are two great facts of this movement represented by this gathering here to-night, and those are the two great facts which bring together nine-tenths if not ninety-nine hundredths of the people who come here. One is the great fact that Chautauqua helps to bridge over the great gulf between the illiterate and literate classes; between the multitudes of people who do not read, and therefore do not think, and the comparatively few who are leaders and thinkers. \* \* \* But there is another great thing that Chautauqua has done. It has, more than any other institution of our time, made popular the study of the word of God, and because Chautauqua lifts people out of ignorance into intelligence I rejoice in it, and I pray a thousand blessings upon it now and in the years to come. (Chautauqua's twenty-first anniversary, August 7, 1894.)

[Dr. R. D. Roberts.]

I want to call your attention to a very interesting circumstance. The university extension movement in England reaches its majority this year. We are one year older than you are in America. Here are two movements that started in countries thousands of miles apart and quite independent of each other. We knew nothing of what you were doing and you knew nothing of us, yet fundamentally the two movements had the same great purpose. They march along the same lines, studying to the same end, increasing these means for all. That is a curious circumstance. It shows that these two movements are the

natural outcome of forces that lie deep down in the very roots of society. They have grown, they have evolved, they are growing. No one can tell how great a future may lie before them. I come here hoping to learn something from your way of doing things. You in America have taken some hints from us and we are helping one another, and we are marching to the same great end. (Address at Chautauqua, August 1, 1893.)

### PART III.—THE CATHOLIC SUMMER SCHOOL OF AMERICA.

One of the most interesting and hopeful developments of higher popular education in America may be seen in the Catholic Summer School at Plattsburg, N. Y. The adoption of the Chautauqua idea by Catholic educators, with the approval and encouragement of the present Pope, shows the wonderful adaptability of the Chautauqua system, as well as the progressive tendencies of Catholicism in this country. The New York Sun, commenting, May 29, 1892, upon the original project of "The Catholic Chautauqua" at New London, Conn., said editorially: "The camp meeting idea has borne rich and abundant fruit, but the most remarkable of all is this Roman Catholic enterprise. By means of it the Catholic Church may be brought into sympathetic relations with the purely American spirit and with American methods and traditions, which will have a powerful influence upon its future in this country. The establishment of a Catholic Chautauqua is an event of high importance and great significance."

### INFLUENCE OF CHAUTAUQUA.

The close connection between this new educational enterprise and the historic Chautauqua is clearly indicated by the following extracts from an article by Mr. Warren E. Mosher, secretary of the Catholic Summer School of America, who, with other writers, contributed to *The Rosary* in 1894 good accounts of the beginnings of the whole movement:

"A retrospective view of the Catholic Summer School of America takes me back to an evening in the fall of 1885, when, for the first time in my life, the Chautauqua system of education was brought to my attention. The information was imparted to me by a friend who had just joined a Chautauqua reading circle, and who urged me to become a member also. This I was very willing to do upon learning of the many advantages of the system.

"At the first meeting of this circle which I attended I was favorably impressed with the methods of the Chautauqua Literary and Scientific Circle, this being the title of the department of reading circles under the Chautauqua system, and from that time the desire took possession of me to institute such a system of popular education for our Catholic people.

"For four years I was a member of this local Chautauqua circle, in the management of which I took an active part, serving as presiding

officer two years. The study of the system occupied much of my attention, and I became familiar with its various departments, including the reading circle, summer school, college of liberal arts, and other departments. As the knowledge of this vast and admirably planned institution grew upon me, the difficulties of establishing a similar one on Catholic lines seemed overwhelming. The opportunity to make the attempt to organize did not present itself until the spring of 1889, when, after consultation with my pastor, the Rev. E. Mears, an organization was effected on April 6, and the institution named The Catholic Educational Union. Father Mears was its first president. He was succeeded by the Rev. Morgan M. Sheedy, of Pittsburg, Pa., the present incumbent. About two weeks previous to the establishment of the Educational Union a Catholic reading circle was formed, for the purpose of giving an object lesson of the system. This circle was called The Home Reading Circle, and still exists.

"Intelligence of the aim and methods of this union was spread throughout the land through the Catholic and secular press, by correspondence and personal visits to many places by myself. The project met with much favor and encouragement, but obstacles barred its progress also at every turn. There was not a dollar behind the institution, yet I had determined to devote my whole time to the enterprise and make it a life work.

"In October, 1889, a number of circles which had been organized under the auspices of the Educational Union entered upon the course of reading prescribed. From the time of the establishment of the union until January, 1891, the connection between the various circles and the union was kept up by means of leaflets issued monthly, containing the order of reading, directions, etc. In January, 1891, the first number of the Catholic Reading Circle Review, official organ of the union, made its appearance."

#### A CATHOLIC CHAUTAUQUAN.

The above Review mentioned by Mr. Mosher reminds one of the magazine called The Chautauquan. It is edited by Mosher himself who deserves great credit for his successful enterprise. The Review is published monthly at Youngstown, Ohio, and is the recognized organ of the Catholic Summer School as well as of the Catholic Educational Union. As in the Chautauquan, general and required readings are published in this Catholic Review. It contains valuable articles relating to history, science, religion, literature, art, and philosophy. Some of the leading Catholic scholars in America contribute to its columns. Its influence must be for good upon the development of general intelligence and a broader culture among its American readers. There is a reading-circle department in the magazine for the guidance and encouragement of local literary societies. There is also a Catholic teachers' council for the discussion of educational questions of a practical character and for the dissemination of correct ideas of pedagogy.



It was through the Catholic Reading Circle Review, founded by Mr. Mosher in 1891 and still edited and published by him, that the idea of a Catholic summer school was most strongly promoted. Two features of Chautauqua had already been reproduced: (1) Reading circles, pursuing a definite and prescribed course under central direction; (2) a monthly magazine devoted to the educational interests of the Catholic Educational Union, which corresponds to the Chautauqua Literary and Scientific Circle.

#### DEVELOPMENT OF THE PROJECT.

The idea was for some time under discussion, but, according to Mr. Mosher, it was not until January, 1892, that the project was given public mention. This was in the shape of a letter to the Catholic Review, of New York City, by the Rev. James F. Loughlin, D. D., of Philadelphia:

"A few weeks ago Mr. W. E. Mosher, the secretary of the Catholic Chautauquamovement and editor of the Catholic Reading Circle Review, consulted with me as to the feasibility of choosing some desirable place where the Catholic educators of the country and those who are interested in reading circles might assemble during the summer vacation and devote some time to the discussion of educational matters, listen to addresses from prominent and experienced teachers, etc. With that characteristic of American Catholicity which immediately 'sits on' everything which looks like a novelty, I answered bluntly that 'the project was visionary.' 'The time may come,' said I, 'when such schemes may work, but not in the present posture of affairs.' I venture to say that ninety-nine out of every hundred Catholics in the country would have treated the proposition precisely as I did, for there are few of us who feel able or willing to 'run a hotel.' And yet, when we take a second thought, what is there wild or impracticable about Mr. Mosher's project? There has been an immense and widespread awakening of interest during the past couple of years in the improvement of Catholic pedagogy and the cultivation of Catholic literature. How to perfect our schools, how to interest our young men and women in mental culture, are the questions uppermost in the minds of clergy and laity. Why not hold an informal congress for the discussion of such questions? And what better plan than a general assembly during vacation time? As the Catholic Young Men's National Union will hold its annual convention toward the end of August in the city of Albany, Mr. Mosher suggests that the headquarters of the Catholic Chautauqua might be fixed somewhere in that neighborhood, either on the Hudson or at Saratoga. Every Catholic interested either in the improvement of self or of Catholic youth might be invited to attend. A special invitation might be extended to that valuable and much neglected body, the Catholic teachers in the public schools."

From the time of the publication of the above letter the development



of Mr. Mosher's project was rapid. He says in the article already quoted:

"The matter was at once taken up and discussed in all its bearings. Many eminent prelates, priests, and laymen gave expression of their opinion in the Reading Circle Review, and a meeting was called under the auspices of the Educational Union at the Catholic Club, New York City, May 11, 1892. About 25 assembled in response to the call. \* \* \* The Catholic Summer School is the outgrowth of the reading circle movement, and the reading circle movement, as it now exists, may be said to have originated with the Chautauqua system, while the Chautauqua system, although in a modern guise, bears many traces of the system of education in vogue before the Christian era and carried to perfection under the influence of the church in the scholastic age.

"I have mentioned the Educational Union particularly because of my connection with that institution, but the Catholic reading-circle movement is not due altogether to the influence of the Educational Union. The establishment of Catholic reading circles was attempted shortly after the Chautauqua circles became known. In 1885 an attempt was made to carry on a reading circle in the Young Ladies' Sodality at Youngstown, Ohio, but it did not continue long. Other attempts were made in different places and with better success. In 1888 the establishment of Catholic reading circles was advocated by Miss Julia Perkins (recently deceased), of Milwaukee, Wis., through the Catholic World, and in June, 1889, the same magazine announced the establishment of the Columbian Reading Union, under the direction of the Paulist Fathers, having for its object the propagation of Catholic reading circles. The first attempt at organized effort, however, was made in 1889, with what success the reading public already knows."

#### ORGANIZATION.

The Catholic Summer School was organized in May, 1892, and held its first session, as proposed, at New London in July, 1892. The programme for the first season embraced many interesting and valuable features.

The first temporary president of the Catholic Summer School in 1892 was the Rev. Morgan M. Sheedy, of Altoona, Pa. The first president was Rev. James F. Loughlin, D. D., of Philadelphia.

In February, 1893, the Catholic Summer School received its charter from the regents of the State of New York, and in May selected Plattsburg, on Lake Champlain, for its permanent site. The land, some 450 acres, 2½ miles from the city, was presented by the Delaware and Hudson Railroad. The grounds, now called "Cliff Haven," fronting on Lake Champlain, have been laid out and improved to a considerable extent, although for the second, third, and fourth summer sessions, 1893-1895, most of the lectures and classes were held for convenience in the city of Plattsburg.

The first building erected at Cliff Haven was for administration purposes. It stands fronting the lake at the northeast corner of the ground and cost about \$2,500. It contains an auditorium accommodating about 300 people. The managers intend to build a chapel on a beautiful forest knoll overlooking the water, and to christen the chapel "Our Lady of the Lake." A larger auditorium is in prospect. Cottages are now planned, with boarding houses and restaurants. Soon we may expect to see reproduced at Cliff Haven, on the border of Lake Champlain, an academic village worthy of its historic prototype on Lake Chautauqua.

In August, 1893, the Rev. Thomas J. Conaty, D. D., of Worcester, Mass., was elected president, and he has since continued in that elective office. Clergy and laity appear to be about equally represented on the present board of trustees. The summer school at Plattsburg is under the direction of the Catholic Church. Bishop Gabriels, of Ogdensburg, in whose diocese the school is planted, is its ordinary or episcopal superior. Archbishop Corrigan is the metropolitan, for Plattsburg is in his ecclesiastical province.

#### SESSION OF 1895.

The following account of the third session of the Catholic Summer School was written by the Rev. Morgan M. Sheedy, of Pittsburg:

"The third session of the Catholic Summer School of America opened July 14 and closed August 13, 1894. It was in every respect the most notable and successful assemblage of the students and friends of higher education on strictly Catholic lines who, during the past three years, have been following the summer school course of lectures.

"In the increased attendance over preceding years, in the widely separated sections of the country represented, in the range and variety of the subjects discussed, all of which were of present and practical interest, in the growing favor with which the summer school idea has been received by the clergy and hierarchy of the church, which was manifested by the presence of priests and bishops deeply interested in the daily work of the school, in the many pleasant reunions of former students of college and academy and the happy hours of sweet intercourse of highly cultivated men and women, in the beautiful spirit of social harmony that prevailed everywhere, there was nothing wanting to make the session that just closed at Plattsburg, on the eve of the feast of our Lady's Assumption, the most successful in the short history of the Catholic Summer School.

"In the brief space allotted to the writer it is only possible to note a few things that contributed to this success. The increased attendance was largely due to the conferences of reading circles held last winter and spring in Boston, Philadelphia, Rochester, New York, and Chicago. In these conferences the work done at the summer school and the means of doing it were fully and clearly set forth. The aims and objects

of the school were made known to Catholic students interested in the problems that are at present stirring men's souls; and many were desirous of knowing how those problems were to be met and answered by Catholic teachers, men of rare and acknowledged ability, each in his own department of science, art, history, law, philosophy, and religion. Accordingly they came in large numbers and set themselves down by the placid waters of Champlain to drink in, during the four weeks of the session of the school, truth and wisdom.

"As was to be expected, the majority of the students came from New England and Middle Atlantic States, though there were representatives from States as far west as Wisconsin and as far south as Kentucky and Louisiana. Brooklyn, among the cities of the country, had the honor of having the largest delegation, while New York, Rochester, Buffalo, and Boston sent a large number of students. The personal efforts made by individuals was also felt in this year's attendance. Those who come one year return home determined to make known to their friends the many advantages to be gained by attendance at the school.

"Of the lectures there is space only for a short summary. By reference to the syllabus we find a wide range and much variety. Ethics, law, science, American institutions, Catholic literature, early educators and missionaries, studies among famous English authors, work in Sunday schools, social problems, young men in public life, astronomy, Christian art, Catholic organization of intellectual forces, artists and their masterpieces—these were the subjects discussed during the first three weeks of the school. The fourth week, which was chiefly intended for teachers in our schools, had a special normal course, a series of lectures on logic and psychology, language and literature, mathematics, history, and a series on the Bible and the encyclical of Pope Leo XIII on the study of the Scriptures. This list will give the reader some idea of the value and importance of the work done at the school. It is no child's play, nor is it a hard task voluntarily imposed by those in attendance, for the subjects that may be considered difficult and abstruse are, by the skillful treatment of the lecturers, so handled as to be easily comprehended by the ordinary mind.

"Not the least important, and certainly one of the most pleasing features of the school, was its social side. There were many receptions to distinguished friends and visitors, such as those tendered to his grace the Most Reverend Archbishop of New York, to the bishop of the diocese, to Bishop Watterson, and the newly consecrated Bishop of Albany, N.Y. There were readings, musicales, and a special reception to the Catholic authors and writers present at Champlain. Various excursions to points of interest in this historic and romantic region—to Au Sable Chasm, to Saranac, to Montreal, Burlington, and to the shrine of Ste. Anne de Beaupré, which were undertaken by the whole school or by small parties—filled in profitably and pleasantly, indeed, the hours needed for recreation and rest. \* \* \*



"What rendered this session most notable was the laying of the corner stone of the new administration building on the ground of the school by Archbishop Corrigan, of New York, on the afternoon of Sunday, July 29, and the communication to the school, by the apostolic delegate, of the letter of the Holy Father approving the movement. We subjoin both the letter of Archbishop Satolli and that of the Pope:

[Letter from Archbishop Satolli.]

WASHINGTON, D. C., July 14, 1894.

REVEREND DEAR SIR: With no little surprise I find that the letter of His Holiness Leo XIII commending with highest praise the Catholic Summer School of America has come to me. Most undoubtedly the institution over which you preside is one in every way worthy of commendation and encouragement. If before the session closes it be possible to visit you, I shall give you notice. Meanwhile be assured that I am ready and willing to render your Champlain school any service in my power.

Wishing you a full measure of success, I am, devotedly, yours, in Christ,

FRANCIS, ARCHBISHOP SATOLLI,

*Apostolic Delegate.*

Rev. THOMAS J. CONATY, D. D.

[The Pope's letter.]

*To our Venerable Brother Francis, Archbishop of Lepanto, Apostolic Delegate in the United States of North America, Washington, D. C.*

Venerable Brother, health and apostolic benediction: It has recently been brought to our knowledge that, among the many movements so opportunely set on foot in the United States for the increase of religion, a Catholic summer school, through the cooperation of clergy and laity, has been established on Lake Champlain, at Plattsburg, in the diocese of Ogdensburg. We have also learned that the school has been affiliated by the board of regents of the University of New York, and empowered to confer degrees upon those who follow its courses of study. There were many reasons for the founding of a school of this kind; one affecting the good of religion, that Catholics by their union of thought and pursuits may the more effectively defend the Catholic Church, and induce our brethren who are separated from us concerning the Christian faith to make their peace with her; another, that by means of lectures from learned teachers the pursuit of the highest studies may be encouraged and promoted; finally, that through the principles laid down by us in our encyclical on the condition of labor, and by their practical illustration and application, the peace and prosperity of your fellow-citizens may be secured. We are aware that bishops have been the promoters of these things because they saw that in many ways notable benefits would result therefrom. Moved, nevertheless, by our great desire that the best interests of the people of the United States may be furthered by the constant addition of new helps, we are pleased to give our commendation to the trustees of this summer school, and to exhort them not to depart from the road which they have already taken, but to go forward in it with braver confidence. Since we have been informed, also, that in a short time the third annual session of the school will be held, and that bishops, priests, and members of the laity will be present, we send to those who will attend our heartiest greeting, praying God to bless their undertaking and purposes. We trust, venerable brother, that in this your aid will not be wanting, and that by constant assistance you will encourage these assemblies of Catholics, and see that the largest benefits accrue therefrom to religion and good citizenship. May the apostolic benediction, which we impart most lovingly, be an earnest of the many heavenly blessings with which we pray the Almighty to reward your zeal, and that of the other bishops, priests, and people.



## SESSION OF 1895.

A syllabus of lectures, given at the Catholic Summer School at its fourth session, July 6 to August 19, 1895, was published in the shape of a small pamphlet of 40 pages by D. C. Heath & Co. It contains also the names of the board of trustees, the executive committee, the board of studies, the directing board of the Reading Circle Union, and the women's auxiliary committee.

A noticeable effort has been made at Plattsburg to systematize popular instruction. The lectures are all arranged in courses, each with an elaborate and printed outline for the convenience of students. No single lectures find a place in the schedule. Three distinct courses were given each week of the summer session in 1894. The mistake of surfeiting the public was not made. To illustrate the plan of work the following examples will suffice:

The first week there was a course of five lectures at 9.30 a. m., by the Rev. W. H. O'Connell, of Boston, upon the "External relations of the early church." At 11 a. m., from Monday till Friday, there were lectures on the "Philosophy of literature" by Conde B. Pallen, Ph. D., of St. Louis. On four evenings in the week there were popular scientific lectures by Rev. T. J. A. Freeman, of Woodstock, Md. Saturday evening was usually devoted to social receptions or other festivities.

There was manifest method and continuity in the make-up of the programme from week to week. The "Internal development of the early church" was presented by James F. Loughlin, D. D., of Philadelphia, in a course of five morning lectures. Then followed the beginnings of English literature, French literature, Spanish colonization of America. Evening lectures on popular science gave way to lectures on the Bible. As at Chautauqua, so at Plattsburg, manifestly great importance is attached to religious as well as to scientific studies. "The impetus," says Dr. Conaty, "that has been given to the study of the Bible by the recent encyclical of Leo XIII called for a special line of work upon the sacred Scriptures."

Lighter and entertaining subjects were not left out of the programme. Col. Richard Malcolm Johnston, that charming story-teller from Baltimore, gave a course of five lectures on the "Evolution of the novel." The history and evolution of music were illustrated in a pleasing manner. The possibilities of this kind of popular education are just dawning upon the American cities and summer schools. The history and philosophy of art were represented at Plattsburg in evening lectures.

Special courses were also offered in drawing, elocution, cooking, botany, and other popular subjects. In a résumé of the summer's work, published in the Worcester Spy, August 25, 1895, the Rev. Dr. Conaty, president of the school, said: "Miscellaneous subjects, the single lecture, the ordinary topic of current interest, all were carefully eliminated from the programme. It was felt that the summer-school

idea was not so much to please the fancy or to follow the facts of everyday society, nor to scatter the thought of the students over a variety of matters, but rather to concentrate thought upon a definite line of study which would give to the summer school something of the character of a systematic college instruction, covering a period of years. \* \* \* The programme had in it a harmony of thought and a unity of purpose. The subjects were subjects which commend themselves to the higher lines of thought and adapt themselves as well to the ordinarily educated mind."

Regarding the social side of the Catholic Summer School, its president remarks: "The receptions given by the ladies on the Saturday evenings of the session have been sources of delight and pride to the school, for they have proved that among our Catholic people there is an undeveloped social strength, which gatherings like the summer school will tend to develop. Catholics coming together from all sections of the country are led to know one another better, to become acquainted with the men and women who have earned distinction in lines of study and success, men and women of literary prominence, distinguished in church and state, and thus the social elements of the Catholic people are welded together into a mighty mass, which must tend toward the uplifting of our people into that position which they should occupy as a part of this great nation."

The attendance upon the summer session in 1895 was highly gratifying to the friends of this Catholic school. About 1,500 different persons were registered. They came from regions as far west as Salt Lake City; from Canada on the north and Florida on the south. Twenty-eight States were represented. New York led with 713 students. Massachusetts sent 190; Pennsylvania 55. New York City and Boston had the largest municipal delegations, although Brooklyn, Philadelphia, Buffalo, Rochester, Springfield, and Worcester were not far behind. When the accommodations become more adequate, when cottages and summer hotels are erected at Cliff Haven, we may expect to see an even larger attendance. The Catholic Summer School meets a recognized want for both clergy and laity. It will afford a popular retreat from the routine labors and social or business distractions.

There is something irresistibly attractive to human nature in the idea of a summer encampment on lake or stream. Men like to get away from towns and cities and to enjoy communion with nature. When to the charms of the lake shore are added the comforts of home life, the attractions of literature, art, and music, neither the creature discomforts of savage life in the woods nor the jejune pleasures of the summer hotel, with all its piazzas and social inanities, can successfully vie with the summer school, if rightly managed, as a rational mode of recreation and enjoyment. One who has tried the experiment will confess the advantages of pleasant intellectual occupation and of civilized life in summer vacation over social dissipation and expensive savagery.

## FUTURE OF THE WORK.

The Rev. Thomas J. Conaty, now president of the Catholic Chautauqua, writes concerning its future:

"The Catholic Summer School of America is an assured fact. Catholics have long called for it, and in its existence it corresponds, in some measure, to their ideas, and satisfies their desires. They have recognized its necessity and its usefulness, and now they are appreciatingly grateful for the efforts made to establish it. As an intelligent force in Catholic educational work it has demonstrated its power. It is not a college, much less a university, but it aims by lectures and correspondence to give opportunity for study along special lines of advanced thought; to open up fields for research in science and philosophy; to bring together representative teachers of all branches of learning, who will give to students the results of life work; to unite in social intercourse Catholics from different parts of the country; in a word, to mold a Catholic student element into a strength and influence for good which will save not merely the individuals composing it, but will reach out into society and save it. This will redound to the credit of the church and provide able and intelligent defenders of sacred truth against the falsehoods of heresy and agnosticism. The purpose of the school is to supplement and complement the work of education, so well cared for in our schools and academies. It will serve to repair, on the one hand, the injury done by defective education, and on the other to broaden and more generally embellish what is already good. It reaches out to our busy men and women and offers them the privilege of special study which will supply for them much which they long for but can not obtain without great danger to the principles of truth and right action. In this the prospective of our summer school is that of a quasi-university of special knowledge—a people's university—to enter which the only requisite is heart and mind seeking greater light and fuller development of truth. The colleges and universities which train the minds and hearts to the enjoyment of higher education open their doors to the very few who alone have time, means, and ambition to pursue their courses of study. Shall the many be left to content themselves with the pittance which comes from fewer years at school? Has higher education nothing for them? The summer school answers that ambition. Desire for self-improvement among the people, even among those who have already received more than the average, must be and is answered in the summer universities, where all tastes are sought to be satisfied. The movement is in its infancy among us Catholics, but Chautauqua has demonstrated its usefulness and its success. Its possibilities are as vast as the wants of our people. It may become an attachment of school, academy, college, and even university. It may serve as a valuable assistant to lyceum and association, to literary,



scientific, and philosophical research in reading circle or at the fireside of one's home. It brings at once into our private and public Catholic life the results of the intellectual endeavors of our best scholars, our most profound thinkers, who, under the inspiration of our holy faith, have sounded the depths of secular knowledge, and who come to us with arms full of sheaves of ripe scholarship with which to ornament the education of our schools and homes. The prospective of the Catholic Summer School is a parent home by the banks of the beautiful Champlain and branch schools throughout the country, permeating our social life and bringing near to our people, in all sections of our great country, the many advantages which have now to be sought for at much sacrifice.

"Champlain, the first attempt of Catholics, is the pioneer school—first missionary, as it were, in the endeavor for higher education for the people. We are but sowers of the idea, reaping, indeed, some of the results; but those who come after will reap them in the fullness of a ripened harvest. A college city, a university town, will rise up upon the banks of the lake; halls of science will welcome to their lecture rooms the thousands of students who, like pilgrims of old, will journey thither seeking knowledge. Hospitality will spread its pleasant cheer before all, and enjoyment and mirth will make the hours of relaxation pass amid the joys of innocent friendship. Days will come and go, and learned travelers will delight the student world with the tales of discovery and research; philosophers and seers, with the illumination of faith upon their words, will separate the dross from the gold in the principles of life; and a purer and higher knowledge of God and of themselves will come to the earnest seekers. The warriors of faith, while discoursing of the deeds of old, will help prepare the weapons of defense for all to use in the battles of the present; builders of a true life will train mind and heart in the skill necessary for the building of the structure of faith. In a word, the Catholic Summer School of America has a future which may be made a potent factor of our religious and social life as American Catholics, opening to them their place in the great intellectual movement which is destined to bring to our church and our people the treasures of mind and heart which truth transmits across the ages as our inheritance. Our duty is to drink deep at its springs, equip ourselves well for our responsibilities as American Catholics, and, by the true education of intellect, add luster to our church, happiness to our homes, and salvation to our great and glorious country.

"Its location, somewhat remote from the haunts of great travel, is an advantage in the exclusiveness of student life which it guarantees. None but those who are in sympathy with the work will seek its quiet shades. It will have no attractions for those governed by curiosity or pleasure alone, and the earnest student will not have his life marred by the interruptions which come from hordes of pleasure seekers.



Education itself makes the community exclusive, and that which is purchased with sacrifice is most appreciated. Our Catholic Summer School in its future is the home of Americans seeking all that truth can give."

#### CATHOLIC READING CIRCLES.

The following suggestions for organizing and conducting reading circles have been published in the Catholic Reading Circle Review. They are very practicable, and may be applied in any neighborhood where there is social intelligence:

"A reading circle is several or more persons who meet together for mutual intellectual help and improvement. A circle may be confined to the family circle; it may be formed among members of a sodality or other organizations, or it may be made up of persons of many organizations. It may be exclusively of young men or young women, or both, and it may include old and young. They may be formed in academies and colleges for supplementary reading, and by alumni societies.

"A circle may be formed by calling a public meeting through the press or by an announcement in the parish church, or it may be formed by a few persons quietly, and the membership limited. No person, however, should be excluded. Generally better results are obtained in circles of not more than thirty members than in larger circles, but there are successful circles of the C. E. U. [Catholic Educational Union] with more than fifty members.

"The organization should be simple, and so conducted that all may feel at home and take part in it.

"The officers usually are a president, vice-president, secretary, treasurer, and a programme committee. As much of the success of a circle depends upon its officers, care should be taken in their selection.

"Adopt a constitution containing only the simplest rules necessary for system and order, and select a name and motto significant and appropriate.

"Small circles sometimes meet at the homes of the members in turn. A permanent meeting place is generally found in a pleasant room of some association.

"Meetings should be held weekly, if possible.

"The manner of conducting a circle has much to do with its success. There are as many ways of interesting and instructing a circle as there are successful methods of conducting classes in schools and colleges.

"The requirements of circles are as varied as their membership, and leaders must select and follow methods suitable to their special needs.

"The following plan has been tried with success:

"A leader is appointed for each study, and the responsibility of conducting exercises on the study placed upon him.

"The circle is divided into sides, and a competition entered into for the following credits:

"(1) Attendance at meetings.

"(2) Promptness in being present at the appointed time.

"(3) Responding to the roll call with a quotation.

"(4) Performance of duties assigned.

"(5) Keeping up to date with the required reading prescribed by the C. E. U.

"(6) When discussing current events to relate some matter of current news not previously mentioned at the meeting.

"(7) Answering the question drawn at the previous meeting from the question box.

"The president, who is not on either side, keeps a record of the merits, and at the end of the year's reading the winning side is banqueted by the losers."



## CHAPTER XX.

### PENSIONS FOR TEACHERS.

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It has not been the custom in this country to pension civil officials, but of late years a movement has been on foot among teachers to promote the payment of annuities or pensions to teachers disabled by illness or old age. In a few cities this movement has resulted in laws passed by the legislatures of the respective States which authorized the city authorities to raise a pension fund, the proceeds of which are to be used in paying pensions to teachers after a certain number of years of service. The intention is evidently to secure a longer tenure of office to teachers, to weed out disabled persons, and secure better talent by holding out the inducement of provision for old age or sickness.

The following is an extract from the fifteenth annual report of the superintendent of Boston public schools. It states the conditions prevailing in Massachusetts, or rather in Boston:

*The Boston Teachers' Benefit Association.*—Among the unsolved practical questions connected with the public school service in large cities is that of making suitable provision for superannuated teachers. Men and women who have spent the prime and strength of their lives in the public school service have claims to consideration which only the most barbarous could deny; and yet, as things are now managed, it is often impossible to regard these claims without sacrificing the best interests of the children in the schools. The problem is to devise some practical method whereby teachers who have passed their prime shall receive all merited consideration for long and faithful service, without at the same time impairing the efficiency of instruction in the schools. No one acquainted with our schools will affirm that there is any such method in use now. There are no pensions for those who retire; nor is there any way of giving reduced work and reduced pay, for a while, to teachers whose usefulness, though impaired, is not gone.

Several years ago the school committee took up this matter seriously, and devised a system of pensions for retiring teachers, but nothing came of it, except that the eyes of many people were opened to the need of some such system. The argument for a pension system does not rest alone or chiefly on the claims that long-trying and faithful servants have to considerate and merciful treatment, strong as these claims may be; it rests chiefly on the interest which the public has in securing the highest character and efficiency in the public school service. Probably the school committee could do nothing which would more enhance the dignity, the attractiveness, and the efficiency of the public school service in this city than to put in operation a good system for the gradual retirement and pensioning of teachers. Why should not the management of the public school service be as wise as that of the best colleges and the most successful private corporations? The professor emeritus is paid a salary (a reduced salary, perhaps) more in consideration of his past than of his present



service. Would it not be a wise policy to encourage teachers with the prospect of a like dignified and honorable retirement after long and faithful service? Would not the schools be enough better managed and taught to make it in the long run an economical policy?

In the school system of a great city it should be impossible to distribute duties in such a way that less exacting cares may fall to the share of those who, though already worn, are not yet wholly incapacitated for useful service; and if well-managed private corporations find it for their pecuniary advantage to take good care of aged and enfeebled employees, why will not the city gain by a similar policy—not money, indeed, but increased efficiency in the public school service? The difficulties in the way of beneficial action in this matter do not seem insurmountable—would probably sink into insignificance in presence of a hearty determination to overcome them. It may not be unreasonable to hope, therefore, that this vitally important matter may be taken seriously in hand by the leaders in city and State affairs. Boston and Massachusetts should lead the way in placing the public school service on a better basis than it has ever yet stood upon in this country.

So much I have thought it fitting to say by way of preface in a notice of the Boston Teachers' Mutual Benefit Association, an organization that has no official connection with the school committee, yet one which is doing a work that has a direct bearing on the welfare of the schools. I do not think that this voluntary organization of the teachers answers the needs I have pointed out; but it mitigates the ills that arise from the present irregular and haphazard mode of treating superannuated teachers. For the information which follows I am indebted to a member of the association.

The Boston Teachers' Mutual Benefit Association is based upon a similar organization in New York, the plan of which was brought before some of the teachers of this city in February, 1888, by Miss P. Catherine Bradford, of the Franklin School. In February, 1889, Granville B. Putnam, of the same school, brought the subject to the attention of the masters. As a result, a joint committee, consisting of 8 women and 8 men, was chosen, with authority to prepare a constitution and organize an association. At a meeting of the committee held April 27, 1889, an organization was perfected and a constitution adopted under the laws of Massachusetts.

In aid of the permanent fund of the association, a most successful bazaar was held in Music Hall for the week beginning December 5, 1892. The cooperation of public-spirited citizens, and especially of many of the philanthropic ladies of Boston, was secured, and as a result more than \$56,000 was added to the fund. Success has attended the association from the beginning. It has a membership of about 950 and funds amounting to about \$80,000. Most of this is invested in first mortgages in Boston and immediate vicinity. The income from assessments of members is about \$8,000 a year and from investments nearly \$4,000. The \$12,000 of annual income thus secured is expended in annuities paid to disabled teachers, or those who, having taught for thirty-five years, desire to leave the service. About 50 teachers have thus received annuities amounting to 40 per cent of their salaries at the time of resignation.

But for this beneficent institution many of these teachers would still be in the employ of the city, although unable to do satisfactory work because of ill health or the infirmities of age. They have now given place to younger and more efficient teachers, and the city secures the benefit, while from the association they receive a comfortable income. Nor is this all. The nearly 1,000 members, feeling far less anxiety for the future because of membership, are daily doing better work than they could do if the shadows of coming adversities were ever resting upon them. Prompted by a wise forethought in guarding against their own possible necessities, as well as by a generous impulse to help associates in need, these teachers are banded together in the spirit of common brotherhood, a blessing to such of their number as shall avail themselves of its annuities, and a constant advantage to the schools which they have in charge.

The following is the text of a pension law passed by the legislature of the State of Illinois. The teachers of Chicago had proposed it and urged its passage:

AN ACT to provide for the formation and disbursement of a public school teachers' and public school employees' pension and retirement fund in cities having a population exceeding one hundred thousand inhabitants. Approved May 31, 1895. In force July 1, 1895.

SECTION 1. *Be it enacted by the people of the State of Illinois, represented in the general assembly,* That the board of education in cities having a population exceeding one hundred thousand inhabitants shall have power, and it shall be the duty of said board, to create a public school teachers' and public school employees' pension and retirement fund, and for that purpose set apart the following moneys, to wit:

1. An amount not exceeding one per cent per annum of the respective salaries paid to teachers and school employees elected by such board of education, which amount shall be deducted in equal instalments from said salaries at the regular times for the payment of such salaries.

2. All moneys received from donations, legacies, gifts, bequests, or otherwise, on account of said fund.

3. All moneys which may be derived from any and all sources: *Provided, however,* That no taxes shall ever be levied or an appropriation of public money be made for said fund except as herein provided.

SEC. 2. The board of education, together with the superintendent of schools, and two representatives to be selected annually by the teachers and employees of the public schools under control of said board, shall form a board of trustees, a majority of whom shall determine the amount to be deducted from the salaries paid to teachers and employees as aforesaid, and shall have charge of and administer said fund, and shall have power to invest the same as shall be deemed most beneficial to said fund, in the same manner and subject to the same terms and conditions as township treasurers are permitted to invest school funds in article (4) of an act entitled "An act to establish and maintain a system of free schools" in force May 4, 1889, and shall have power to make payments from said fund of annuities granted in pursuance of this act, and shall from time to time make and establish such rules and regulations for the administration of said fund as they shall deem best.

SEC. 3. Said board of education shall have power, by a majority vote of all its members, to retire any female teacher or other female school employee who shall have taught in public schools or rendered service therein for a period aggregating twenty years; and any male teacher or male school employee who shall have taught or rendered service for a period aggregating twenty years, and such teacher or school employee also shall have the right after said term of service to retire and become a beneficiary under this act: *Provided, however,* That three-fifths of said term of service shall have been rendered by said beneficiary within the limits of the municipality where said board of education has jurisdiction.

SEC. 4. Each teacher and school employee so retired or retiring shall thereafter be entitled to receive as an annuity one-half of the annual salary paid to said teacher or employee at the date of such retirement, said annuity to be paid monthly during the school years: *Provided, however,* That such annuity shall not exceed the sum of six hundred dollars (\$600), which shall be paid by said board of education out of the fund created in accordance with this act in the manner provided by law for the payment of salaries.

SEC. 5. Said board of trustees is hereby given the power to use both the principal and the income of said fund for the payment of annuities hereinbefore mentioned, and shall have power to reduce from time to time the amount of all annuities: *Provided,* That such reduction shall be at the same rate in all cases.

SEC. 6. The president and secretary of such board of education shall certify monthly to the city treasurer all amounts deducted from the salaries of teachers, special teachers, principals, and employees of the board of education in accordance

with the provisions of this act, which amounts, as well as all other moneys contributed to said fund, shall be set apart and held by said treasurer as a special fund for the purposes hereinbefore specified, subject to the order of said board of education, superintendent of schools, and two representatives, as aforesaid, and shall be paid out upon warrants signed by the president and secretary of said board of education.

SEC. 7. The city treasurer shall be custodian of said pension fund, and shall secure and safely keep the same subject to the control and direction of said board of trustees, and shall keep his books and accounts concerning said fund in such manner as may be prescribed by the said board. And said books and accounts shall always be subject to the inspection of the said board or any member thereof. The treasurer shall, within ten days after his election or appointment, execute a bond to the city, with good and sufficient securities, in such penal sum as the said board shall direct, to be approved by the said board, conditioned for the faithful performance of the duties of his office, and that he will safely keep and well and truly account for all moneys and profits which may come into his hands as such treasurer, and that on the expiration of his term of office he will surrender and deliver over to his successor all unexpended moneys and all property which may have come into his hands as treasurer of such fund. Such bond shall be filed in the office of the clerk of such city, and in case of a breach of the same or the conditions thereof, suit may be brought on the same in the name of said city for the use of said board of trustees or of any person or persons injured by such breach.

SEC. 8. No teacher or other school employee who has been or who shall have been elected by said board of education shall be removed or discharged except for cause upon written charges, which shall be investigated and determined by the said board of education, whose action and decision in the matter shall be final.

If at any time a teacher or school employee who is willing to continue is not reemployed or is discharged before the time when he or she would under the provisions of this act be entitled to a pension, then such teacher or school employee shall be paid back at once all the money, with interest, he or she may have contributed under the law.

*Detroit, Mich.*—The teachers of the city schools of Detroit secured provision for pensions from their State legislature in a clause of the school law passed in May, 1895, which contains the following provisions:

SEC. 27. The said board of education shall establish what shall be known as the public school teachers' retirement fund, which fund shall be administered according to such rules and regulations, by-laws, and ordinances as may be adopted by the board of trustees hereinafter provided for. The treasurer of said board is hereby given power to hold all moneys belonging to said fund and invest or pay out the same under the direction of said board of trustees as hereinafter provided. Said fund shall consist of:

1. All money, pay, compensation, or salary or any part thereof deducted or withheld from any teacher or teachers on account of absence from duty or any cause in accordance with the provisions of the rules of the board of education.

2. All moneys received from donations, legacies, gifts, bequests, or otherwise, for or on account of such fund.

3. All such other moneys as may be obtained from miscellaneous sources or appropriated or raised thereof by approval of the common council and board of estimates.

4. All percentages the said board shall deem reasonable and expedient to deduct from the salaries of the teachers in the public schools of said city, and which shall not exceed one per cent of the salary of each teacher.

5. All interest or income derived from the above moneys.

The board of education, together with the superintendent of schools and two representatives to be selected by the teachers of public schools, under control of



said board, shall form a board of trustees, a majority of whom shall determine the amount to be deducted from the salaries paid to teachers as aforesaid and shall have charge of and administer said fund, and said board of trustees shall have power to invest the same as shall be deemed most beneficial to said fund, and shall have power to make payments from said fund of annuities granted in pursuance of this act, and shall from time to time make and establish such rules and regulations, by-laws, and ordinances for the administration of said fund as they shall deem best.

On and after the passage of this act said board of education shall so amend its by-laws relating to the absence from duty of teachers as to provide that reasonable sums shall be deducted from the salaries of teachers on account of such absence from duty, and said sums shall be transferred to and become a part of said teachers' fund. Said board shall have the power to retire any teacher after said teacher has taught in said public schools during a period aggregating twenty-five years, and any teacher shall have the right to retire after having taught said period: *Provided, however*, That three-fifths of said term of service of twenty-five years shall have been rendered by said beneficiary within the limit of the municipality where said board of education has jurisdiction. Any teacher so retired by said board, or who may retire voluntarily, at the expiration of said period, shall be entitled to receive an annuity not to exceed the sum of four hundred dollars. The said board shall have the power, with the consent of any teacher, to continue to employ said teacher after the time when it can retire the said teacher as aforesaid. In computing said period of twenty-five years for the present teachers in said schools, they shall receive credit for the time they have heretofore taught in them, and said board may place upon the roll of retired teachers any one who has taught in said schools for thirty years. The president and secretary of said board of education shall once in three months certify to the treasurer of said board all amounts deducted from the salaries of teachers in accordance with the provisions of this act, which amounts, as well as all other moneys contributed to said fund, shall be set apart and held by the treasurer as a special fund hereinbefore specified, subject to the order of said board of education and superintendent of schools, and two representatives as aforesaid, and same shall be paid out upon warrants signed by the president and secretary of said board of education. It shall be the duty of said board, at the time it is required by law, to submit its estimates for each year, to report with said estimates the condition of said fund.

All acts and parts of acts inconsistent with this act are hereby repealed. This act is ordered to take immediate effect.

Approved May 22, 1895.

The constitution, by-laws, and rules of order of the board of trustees of the public school teachers' retirement fund of Detroit are here inserted as an illustration of the *modus operandi* for bodies of like import:

#### CONSTITUTION.

ARTICLE I. This organization shall be known as the board of trustees of the public school teachers' retirement fund of Detroit.

ART. II. The object of this board of trustees shall be to take charge of the public school teachers' retirement fund, and invest and pay out the same according to act 233 of the session laws of 1869, as amended by an act approved May 22, 1895, and according to rules and by-laws hereinafter provided.

ART. III. This board of trustees shall consist of the board of education of the city of Detroit, together with the superintendent of schools and two representatives to be selected by the teachers under the control of the said board of education.

ART. IV. The officers of this board shall consist of a president, a vice president, a recording secretary, who shall be the secretary of the board of education, and a



treasurer, who shall be the treasurer of the board of education of the city of Detroit, and the treasurer shall give bonds in such sum as the board may require.

SEC. 2. The officers of this board shall be selected for the term of one year, said election to be held on the first day in July in each year (except when such day shall occur on Sunday, in which case it shall be held on the day following). They shall hold office until their successors are duly elected. For the year 1895 such election shall be held on the 24th day of September, 1895, and the officers then elected shall hold office until July 1, 1896.

SEC. 3. The election of officers shall be by ballot, and a majority of the votes cast shall be necessary for a choice.

SEC. 4. Any vacancies which may occur among the officers shall be filled by the board of trustees, provided that the person chosen shall hold office only for the unexpired time he or she is chosen to fill.

SEC. 5. No member of the board of trustees shall receive any compensation for services. The compensation of the secretary shall be determined by the board of trustees.

ART. V.—SEC. 1. The president shall preside at all meetings of the board of trustees, and perform such other duties as may be imposed on him by the constitution and by-laws. He shall be ex officio a member of all standing committees.

SEC. 2. The vice-president shall preside in the absence of the president. In the absence of both president and vice-president from any meeting, the members present shall choose a chairman, who shall preside at such meeting.

SEC. 3. The recording secretary shall keep a record of all transactions of the board of trustees, send notice of meetings of the board of trustees to each member thereof, and attend to all the duties usually pertaining to the office, or that may be directed by the board of trustees.

He shall make a report at each regular meeting of the board of trustees of the condition of the finances of the board.

He shall prepare and furnish to the board of education a statement of its affairs for distribution, with the notices of the annual meeting; which statement shall comprise an account of the receipts and disbursements, and the balance in the treasury, a schedule of the property, the number of annuitants, and a list of the officers and of benefactors, and of deceased members.

SEC. 4. The treasurer shall receive all moneys of the fund from the secretary of the board of education, and also the proceeds of all stocks, bonds, mortgages, legacies, bequests, etc.

He shall deposit all moneys received by him in such ways as shall be designated by the board of trustees. All deposits shall be made in the name of the public school teachers' retirement fund.

All checks or orders on banks, savings institutions, or trust companies shall be signed by the president and the secretary of the board of education.

ART. VI.—SEC. 1. Any teacher having taught the time required by the act, who shall become either physically or mentally incapacitated for school work, shall be eligible to be declared an annuitant by the board of trustees, and upon being so declared shall receive an annuity.

Any teacher who shall complete a term of school service of twenty-five years, the last consecutive fifteen of which shall have been in the public schools of the city of Detroit, shall also be eligible to be declared an annuitant, and upon such action by the board of trustees shall receive an annuity.

SEC. 2. Any teacher desiring to be placed on the list of annuitants on account of having completed the required term of school service, shall make application in writing to that effect to the board of trustees.

SEC. 3. Any teacher desiring to be an annuitant on account of disability as provided in section 1 shall make application as above, and if such disability be established to the satisfaction of the board of trustees they may declare such teacher to

be an annuitant; but in case the said teacher shall marry, the annuity may, by a two-thirds ( $\frac{2}{3}$ ) vote of the whole board of trustees, be withdrawn from such member.

SEC. 4. No teacher shall be placed upon the retired list and continue to hold a position in any Detroit public school.

SEC. 5. Persons not engaged in teaching may, upon contributing ten dollars (\$10) or upwards, be elected honorary members of this board of trustees.

ART. VII.—SEC. 1. Any teacher who shall voluntarily leave the service of the board of education before having completed the term of service required by the act shall forfeit all right and benefit in the teachers' retirement fund.

SEC. 2. Any teacher discharged or dropped from the list of teachers by the board of education, except for misconduct, shall receive from the board of trustees the full amount of all moneys paid by said teacher to the credit of the retirement fund, less any interest which may have accrued.

SEC. 3. If any teacher, not an annuitant, shall die, the board of trustees shall pay to the heirs of such teacher the full amount of moneys contributed by such person to the retirement fund, less any interest which may have accrued thereon.

SEC. 4. Any teachers availing themselves of the benefits of the retirement fund shall be required to return to the secretary of the board of trustees from their annuity the sum of \$7.25 in annual payments, the aggregate of which shall be in the maximum equivalent to one per cent upon a salary of \$72.50 per month for the period of fifteen years.

The above shall apply to teachers who avail themselves of the annuity for the first year of its existence. Teachers who become annuitants subsequent to the first year will pay the sum of \$7.25 per year for as many years as are represented by fifteen less the number of years the retirement fund has been in existence.

ART. VIII.—SEC. 1. The annual meetings of the board of trustees shall be held on the first day of July of each year, and other meetings of the board of trustees shall be held in such places and at such times as the board of trustees shall direct.

SEC. 2. The president may call a special meeting at any time and shall do so upon the written request of six members.

SEC. 3. At all meetings of the board of trustees a majority of members elect shall constitute a quorum.

ART. IX. The board of trustees shall have authority to convert moneys donated for any specific purpose to the objects for which such donations may be made.

This constitution may be amended by a three-fourths ( $\frac{3}{4}$ ) vote of all the members voting. Notice of the proposed amendment shall be given at a meeting of the board of trustees, or sent to every member, not less than ten days previous to the taking of a vote thereon.

#### BY-LAWS.

1. Regular meetings of the board of trustees shall be held on the first Monday in October, December, February, April, and June of each year in the rooms of the board of education.

2. There shall be standing committees as follows: A committee on finance, consisting of five members; a committee on bonds and investments, consisting of five members; a committee on annuitants, consisting of five members; a committee on judiciary, consisting of five members.

3. The president shall appoint said committees as soon after the annual meeting in each year as practicable, and they shall hold office until their successors are appointed. The president shall fill all vacancies in standing committees.

4. The finance committee shall have supervision of the finances of the board of trustees.

All statements of receipts and expenditures shall be referred to this committee. No money shall be put out or loaned except on a favorable report of this committee. All applications for payment, either of expenses or annuities, shall be referred to this committee.

The treasurer and the secretary, when called upon for information in reference to the finances, shall furnish such information immediately. This committee shall furnish to the board of trustees information in reference to the finances when called upon to do so, and shall make regular reports in the months of December and June of each year. It shall be the duty of this committee to examine personally the bank accounts and all the assets at least once in six months.

5. The committee on bonds and investments shall cause to be examined and investigated thoroughly the title to any real estate upon which a loan secured by bond and mortgage is proposed, for investment of the permanent fund, and no such loan shall be made without a favorable recommendation from this committee and a majority vote of the board of trustees.

6. All applications for annuities shall be referred to the committee on annuitants. It shall be the duty of the committee to report to the board as soon as possible all the facts in each case, with their recommendation.

7. The committee on judiciary shall have charge of all legal matters pertaining to the board of trustees, and all such matters, unless otherwise ordered, shall be referred to them. They shall also examine any bonds, contracts, or other writings referred to them for that purpose by the president or secretary or any committee of the board of trustees, and shall report to such officers or committee their opinion as to the construction and validity of such writings.

8. The following shall be the order of business at all regular meetings: Calling roll; at annual meeting, election of officers; reading minutes; report of secretary; report of treasurer; presentation of bills; reading of communications and action thereon; applications for annuities; reports of standing committees; committee on finance; committee on bonds and investments; committee on annuitants; committee on judiciary; reports of special committees; unfinished business; miscellaneous and new business; adjournment.

#### RULES OF ORDER.

SECTION 1. Committees shall make report when called on to do so by a majority of the members present.

SEC. 2. Any matter referred to a committee may be taken out of the hands of said committee by a vote of a majority of the members present.

SEC. 3. Cushing's manual shall be the guide in parliamentary matters.

SEC. 4. These rules and by-laws may be temporarily suspended by a two-thirds ( $\frac{2}{3}$ ) vote of all the members present, and may be amended at any meeting by a majority vote of those present, providing a notice of such amendment shall have been given in accordance with Article X of the constitution.

In Philadelphia, Pa., the teachers have constituted an annuity aid association, which was incorporated in 1890. The treasurer of this association reported at the fifth annual meeting in December, 1895, as follows:

Our assets, with the receipts and expenditures for the year, are as follows:

#### *Permanent fund.*

|                                     |                |
|-------------------------------------|----------------|
| Mortgages at 5 per cent.....        | \$101, 700. 00 |
| Mortgages at 5.4 per cent.....      | 11, 600. 00    |
| Cash balance November 21, 1894..... | 221. 95        |
| Receipts to November 23, 1895:      |                |
| Dues of members.....                | \$1, 779. 60   |
| Donations.....                      | 49. 54         |
| Honorary members.....               | 45. 00         |
|                                     | <hr/>          |
|                                     | 1, 894. 14     |
|                                     | <hr/>          |
|                                     | 115, 416. 09   |



*Annuity fund.*

|  |               |                    |
|--|---------------|--------------------|
| Mortgages at 5 per cent .....                                |               | \$20, 200. 00      |
| Cash balance November 21, 1894 .....                         |               | 5, 210. 98         |
| Receipts to November 23, 1895:                               |               |                    |
| Dues of members .....  | \$13, 138. 50 |                    |
| Interest on mortgages, both funds .....                      | 6, 426. 32    |                    |
| Interest on deposits .....                                   | 258. 58       |                    |
| Initiation fees .....  | 240. 00       |                    |
| State appropriation .....                                    | 20, 000. 00   |                    |
|  |               | <u>40, 063. 40</u> |
| Less disbursements: <sup>1</sup>                             |               |                    |
| Annuities paid out .....                                     | \$17, 135. 13 |                    |
| Funeral benefits .....                                       | 600. 00       |                    |
| Expenses, etc .....  | 1, 005. 03    |                    |
|  |               | <u>18, 740. 16</u> |
| Gain in year .....   | 21, 323. 24   |                    |
| Cost of mortgages and insurance of title (included above) .. | 13, 250. 00   |                    |
|  |               | <u>8, 073. 24</u>  |
|  |               | <u>33, 484. 22</u> |

Since the annual statement, November 23, 1895, there has been received to date:

|  |                     |
|--|---------------------|
| For the permanent fund .....                       | \$1, 597. 10        |
| Less reduction on mortgages to be reinvested ..... | 500. 00             |
|  | <u>\$1, 097. 10</u> |
| For the annuity fund .....                         | 1, 872. 45          |

The association holds also in trust for the Alumnae Association of the girls' high and normal school, \$25,000.

From the interest on this trust fund there has been disbursed for the relief of teachers and ex-teachers since October 19, 1892, \$3,690.

The number of members December 30, 1895, is 888, with daily applications for membership.

The movement in favor of paying pensions and annuities to teachers has resulted in numerous inquiries at this Bureau, hence it is deemed advisable to publish as many of the constitutions of the annuity societies as can be obtained. This is the reason the following constitution, i. e., that of the Philadelphia society, is inserted:

## CONSTITUTION.

ARTICLE I.—*Title*.—The name of the society shall be The Teachers' Annuity and Aid Association of the City of Philadelphia.

ART. II.—*Objects*.—The objects of this association shall be to provide for and to furnish pecuniary aid, from time to time, to such of its members as shall be incapacitated from teaching in the public schools of the city of Philadelphia, by reason of sickness or advanced age, in such manner and upon such terms and conditions as the said association by its constitution and by-laws shall prescribe, and also to receive, hold, and expend donations of money for aid of other teachers not hereinbefore provided for, in such manner as the donors may provide.

ART. III.—SEC. 1. *Membership*.—Any teacher or superintendent of schools, in the employ of the board of public education of the first school district of Pennsylvania, comprising the city of Philadelphia, or of any of the boards of directors of the

<sup>1</sup> Total amount paid in annuitants in two years, 1894 and 1895, \$27,034.17. First quarter to March, 1894, 11 annuitants, \$517.51; last quarter to December 31, 1895, 60 annuitants, \$6,261.80.



several school sections of said district, may be admitted to membership in this association by a two-thirds vote of the whole board of trustees, by ballot, and on payment of an initiation fee of five dollars (\$5), and such dues as may be required by this constitution, and upon signing the constitution and by-laws, within thirty days after notification of election to membership. Questions arising as to what constitutes employment by any of said boards shall be determined by the board of trustees.

SEC. 2. *Dues commence.*—Any person eligible to membership at the date of organization applying for membership within two (2) years of said date shall pay dues from date of organization. In all other cases applicants shall pay dues from the time at which they become eligible.

SEC. 3. *Return of dues.*—Any member voluntarily withdrawing from the profession of teaching, after a membership of five or more years, shall be entitled to withdraw a sum of money equal to one-third ( $\frac{1}{3}$ ) of all the annual dues paid by said member into the treasury of the association.

SEC. 4. *Ineligibility from term of service.*—No person whose term of service as such teacher, at the time of applying for membership, exceeds fifteen (15) years, shall, after two (2) years from the date of organization, be entitled to membership.

SEC. 5. *Application for membership.*—Application for membership may be made at any time; but such application must be made in writing in such form as may be prescribed by the board of trustees, and must be accompanied by the fee for initiation and the first instalment of the annual dues, which fees and dues will be returned to the applicants in case of nonadmission to membership.

ART. IV.—SEC. 1. *Officers.*—The officers of this association shall consist of a president, a vice-president, a recording secretary, a financial secretary, and a treasurer, all of whom, with ten directors, shall constitute a board of trustees.

SEC. 2. *Term of directors.*—The directors shall be elected for a term of two (2) years, except as hereinafter provided. Immediately after the election, to be held on the first Saturday in December, 1891, they shall be divided by lot into two (2) classes. The members of the first class shall retire at the end of one year, and the members of the second class at the end of two years.

SEC. 3. *Election day, officers till first election; term of first officers.*—The officers and directors shall be elected annually on the first Saturday of December of each year: *Provided, however,* That the trustees elected November 1, 1890, for the remainder of the year 1890 and for the year 1891, shall hold office until their successors are elected and qualified: *And provided further,* That the next annual election of officers and directors shall be held on the first Saturday of December, 1891, and that the persons then chosen shall hold office until the Saturday succeeding the first day of January, 1892, or 1893, and until their successors are duly elected.

SEC. 4. *Elections by ballot, plurality vote.*—All elections of officers and directors shall be by ballot, and a plurality of the votes cast shall be necessary to a choice.

SEC. 5. *Vacancies.*—Any vacancies which may occur among the officers or directors shall be filled by the board of trustees: *Provided,* That persons so chosen shall hold office only for the unexpired term of the person he or she is chosen to fill.

SEC. 6. *Commencement of term of office.*—All officers and directors shall assume their duties on the Saturday succeeding the first day of January next after their election, except as provided in section 3, for the first officers after organization, and in section 5, relative to vacancies.

SEC. 7. *Delinquent trustees.*—The office of any member of the board of trustees who shall fail to attend three (3) consecutive regular meetings of the board without being excused by the said board, or who shall fail to perform the duties of the office, may be declared vacant by a two-thirds ( $\frac{2}{3}$ ) vote of the board.

SEC. 8. *Nomination of directors.*—For the purpose of nominating directors the board of trustees shall, at least four weeks before the annual election, divide the city into districts, equal in number to the directors to be chosen, by sectional boundaries,

these districts to consist of adjacent school sections, and containing as nearly as possible an equal number of members of the association.

The board of trustees shall, at least ten days before each annual election, call a meeting of all the members in each district for which a director is to be chosen, at each of which meetings the members present may nominate a person to be voted for, at the next annual election, for director of the district. In case no such nomination is made at such meeting, a nomination may be made at the time of the election.

SEC. 9. *Prepared ballots.*—In preparing the ballots for the annual election the following designations shall be used: For president and trustees; for vice-president and trustees; for recording secretary and trustees; for financial secretary and trustees; for treasurer and trustees; for directors and trustees.

SEC. 10. *Compensation of officers.*—No member of the board of trustees, except the financial secretary and the treasurer, shall receive any compensation for services. The compensation of the financial secretary and of the treasurer shall be determined by the board of trustees.

SEC. 11. *Bonds and security.*—The financial secretary and the treasurer shall, before entering upon their duties, furnish bonds with security furnished by a trust company of this city, for the faithful performance of said duties, in such amount as the board of trustees shall direct. Said bonds shall be placed in the hands of the president and the recording secretary, to be deposited in a safe deposit company. In case of a reelection, new bonds shall be furnished, with security as above.

ART. V. *Duties of officers.*—SEC. 1. *Duties of president.*—The president shall preside at all meetings of the association and of the board of trustees, and perform such other duties as may be imposed on him by the constitution and by-laws. He shall be ex officio a member of all standing committees.

SEC. 2. *Duties of vice-president.*—The vice-president shall preside in the absence of the president. In the absence of both president and vice-president from any meeting the members present shall choose a chairman, who shall preside at such meeting.

SEC. 3. *Duties of recording secretary.*—The recording secretary shall keep a record of all transactions of the association and of the board of trustees, send notice of meetings of the board of trustees to each member thereof, and attend to all the duties usually pertaining to the office or that may be directed by the board of trustees.

SEC. 4. *Duties of financial secretary.*—(a) The financial secretary shall receive all money from members and others, receipt therefor, and pay the same to the treasurer within eight (8) days of the receipt thereof. (b) He shall keep a record showing the monthly and other payments of each member of the association. (c) He shall make a monthly statement, as well as an annual report, to the board of trustees of all moneys received, and such other matters as may have been reported to him by the directors. (d) He shall report to the board of trustees at the first regular meeting in January of each year the names of all members who shall have forfeited their membership by nonpayment of dues.

SEC. 5. *Duties of treasurer.*—(a) *Receipts:* The treasurer shall receive all moneys of the association from the financial secretary, and when authorized by the finance committee, the proceeds of sales of stock, bonds, mortgages, legacies, and bequests, etc.

(b) *Deposits:* He shall deposit all moneys received by him in such institutions for savings, or trust companies, as shall be designated by the board of trustees, and all deposits shall be made in the name of the association.

(c) *Checks:* All checks or orders on banks, savings institutions, or trust companies shall be signed by the president and the treasurer.

(d) *Certificates, applications, and vouchers:* He shall send to each elected member a certificate of membership as soon as he is notified by the financial secretary that the said individual has complied with the requirements of this constitution. He shall keep on file such notices, and also all applications for membership.

(e) *Statements annually:* He shall prepare and furnish to the recording secretary a statement of the affairs of the annual meeting, which statement shall comprise an

account of the receipts and disbursements, and the balance in the treasury, a schedule of the property, the number of annuitants, a list of the officers and of benefactors and of deceased members, also the number of members in each school section.

(f) *Payments*: He shall pay all bills and appropriations ordered to be paid by the board of trustees. He shall also pay all annuities or benefits when and as the said board of trustees shall direct.

(g) *Reports*: He shall make a report at each regular meeting of the board of trustees of the condition of the finances of the association. He shall also present an annual report to the association at its meeting in December in each year.

SEC. 6. *Duties of directors*.—It shall be the duty of each director to look after the interests of the association in his or her district; to encourage teachers to become members, and to report all matters of interest, such as applications for membership, withdrawals, removals, transfers, and deaths to the financial secretary.

ART. VI. *Dues*.—SEC. 1. *Basis*.—The basis for estimating the annual dues for any member for any given year shall be the annual salary of said member, on the first day of January of the said year, including the increase for term of service accruing in the said year. The basis shall be in even hundreds of dollars, the lowest being five hundred dollars (\$500), and one hundred dollars (\$100) shall be added for every additional hundred dollars (\$100) or fraction of one hundred dollars (\$100) over said five hundred dollars (\$500).

SEC. 2. *One thousand dollars or less*.—The annual dues of any member receiving a salary of one thousand dollars (\$1,000), or less, according to the basis of section 1, of this article, shall be two per cent of the annual salary of said member on said basis.

SEC. 3. The annual dues of any member whose salary exceeds one thousand dollars (\$1,000), shall be two per cent on one thousand dollars, and one per cent on every additional one hundred dollars (\$100), according to the basis in said section 1, by which the said salary shall exceed one thousand dollars (\$1,000); but the annual dues of any member shall not exceed forty dollars (\$40).

SEC. 4. The annual dues of each member shall be paid to the financial secretary in ten (10) equal instalments—one for each month of the year except July and August, and not later than the twentieth (20th) day of each month. *Provided, however*, That members desiring to do so may pay their dues in advance for any length of time.

SEC. 5. The payment of the annual dues shall continue during life; and in case of annuitant members the said dues shall be one per cent per annum of the annuities of said members.

ART. VII. *Funds of the association*.—SEC. 1. *Two funds*.—The funds of the association shall be known and kept as the permanent fund and the annuity fund, in separate bank accounts.

SEC. 2. *Permanent fund*.—(a) The money received from donations, legacies, entertainments and other sources, and the total amount received from the initiation fees and annual dues, less the current expenses, during the first three (3) years from the end of the year of organization (1890), shall, together with fifty per cent of the initiation fees and annual dues received thereafter, constitute the permanent fund, except as is hereinafter provided.

(b) *Additions to permanent fund*.—All contributions from members, in whatever shape, and all donations, legacies, and bequests, unless ordered otherwise by the donors or testators, shall be added to the permanent fund of the association, and no disbursement of any kind whatsoever shall be made from the principal of the said permanent fund.

(c) *Limits to additions*.—When the permanent fund shall have reached the sum of fifty thousand dollars (\$50,000), only twenty per cent of the initiation fees and annual dues shall be added to it thereafter.

(d) When the permanent fund shall have reached the sum of one hundred thousand dollars (\$100,000), no portion of the initiation fees or annual dues shall thereafter



be added to it; but the entire income of the permanent fund, and the whole of the initiation fees and annual dues shall be placed to the credit of the annuity fund.

SEC. 1. *Annuity fund.*—(a) *After three years.*—After the expiration of three years from the end of the year of the organization of the association (1890), fifty per cent of the initiation fees and annual dues, the receipts from any entertainment given for the purpose, and the entire income from the permanent fund shall be set aside and form a fund for the payment of annuities, subject to the provisions of the following clauses of this section.

(b) *Increase.*—When the permanent fund shall have reached the sum of fifty thousand dollars (\$50,000), eighty per cent of the said initiation fees and annual dues, together with the entire income from the permanent fund, shall be placed to the credit of the annuity fund.

(c) When the permanent fund shall have reached the sum of one hundred thousand dollars (\$100,000), the entire income from the permanent fund, together with the whole amount of the initiation fees and annual dues, shall be placed to the credit of the annuity fund.

(d) No portion of the annuity fund, or the income thereof, shall in any way be added to the permanent fund; but the whole annuity fund shall be used only for the current expenses of the association, funeral benefits for deceased members, and for the benefit of the annuitants in the manner prescribed by this constitution and the by-laws.

(e) *Expenses.*—After the first three years all the expenses of the association shall be paid out of the annuity fund.

SEC. 4. *Disposition of funds.*—The permanent fund of this association shall be invested in bonds of the United States of America, or of the State of Pennsylvania, or of the city of Philadelphia, or in bonds secured by first mortgages on improved real estate in the city of Philadelphia, with title insurance of some reliable trust company for such purpose; but no loan upon real estate shall be made for more than sixty per cent (60 per cent) of its value.

ART. VIII. *Annuitants.*—SEC. 1. *Disability.*—All members who shall become either physically or mentally incapacitated for school work may be declared by the board of trustees to be annuitants, and upon such action shall receive an annuity, as provided in Article IX of this constitution.

All women who shall have completed a term of school service of thirty-five (35) years, and been members of the association for three (3) years, and all men who shall have completed a term of such service of forty (40) years, and been members of this association for three (3) years, shall, if they desire, be declared to be annuitants, and upon such action by the board of trustees, shall receive an annuity, as provided in Article IX of this constitution.

The term of school service above mentioned shall, as soon as the annuity fund will justify, be reduced to thirty (30) years and thirty five (35) years, respectively.

The said term of school service of those who join this association within the first two (2) years from the date of organization, may have been commenced in this city or elsewhere; but of those who shall join after the said two (2) years, the terms of such service shall have been commenced in the public schools of Philadelphia.

SEC. 2. *Application.*—Any member desiring to be placed on the list of annuitants on account of having completed the required term of school service shall make application in writing to that effect to the board of trustees, who, if satisfied that all requirements have been fully complied with, shall declare such applicants to be annuitants.

SEC. 3. Any member desiring to be an annuitant on account of disability shall make application as above; and if such disability be established to the satisfaction of the board of trustees they shall declare such member to be annuitant. But in case the said member shall become thereafter restored to health, and capable of attending to business, the annuity may, by a two-thirds ( $\frac{2}{3}$ ) vote of the whole board of trustees, be withdrawn from such member.



SEC. 4. *Positions debar retirement.*—No member shall be placed upon the retired list while holding a position in any school, public or private. (Amended.)

SEC. 5. *Funeral benefits.*—When any member of the association dies the board of trustees shall pay one hundred dollars (\$100) towards defraying the expenses of the funeral.

SEC. 6. No member shall be entitled to any pecuniary benefit until after the expiration of three years from the date of election to membership.

SEC. 7. Persons not engaged in teaching may, upon contributing ten dollars (\$10) or upwards, be elected honorary members of the association.

ART. IX. *Annuities.*—The annuities shall be sixty per cent of the basis of assessment according to article VI, section 1, of this constitution, at the time of retirement, but no annuity shall exceed the sum of six hundred dollars (\$600). Whenever the annuity fund shall be insufficient to pay in full all annuitants, the whole of said fund, less the current expenses, shall be divided equitably among the annuitants.

ART. X. *Cessation of membership.*—SEC. 1. The name of any member who, in the judgment of the board of trustees, shall have voluntarily left the profession, or that of any member who shall, in the judgment of the board of trustees, be guilty of misrepresentation in his or her transactions with this association, may be dropped from the roll of the association by a two-thirds ( $\frac{2}{3}$ ) vote of the whole board of trustees, and the membership of such person shall thereupon terminate.

SEC. 2. *Arrears.*—Any member who shall be in arrears for dues three (3) months shall be liable, after due notice, according to the by-laws for that purpose, and hearing, if desired, to have his or her membership declared forfeited by a majority of the whole board of trustees.

SEC. 3. Members who lose their position as teachers for any other cause than voluntary resignation may be continued in membership and receive such aid as the board of trustees may prescribe.

SEC. 4. Members who lose their said position for causes other than those already mentioned may be continued in membership under such rules and regulations as the board of trustees may prescribe.

ART. XI. *Amendments.*—This constitution and the by-laws may be amended by a three-fourths ( $\frac{3}{4}$ ) vote of all the members voting. Notice of the proposed amendment shall be sent to every member not less than ten days previous to the taking of a vote thereon. It shall be the duty of the board of trustees, whenever any amendment shall be proposed, to provide for obtaining a vote thereon in such manner as said board may deem proper: *Provided*, That every member of the association shall be allowed to vote for or against the adoption of the proposed amendment. The board of trustees shall also provide for the collection and canvassing of the vote as cast, and shall notify members of the result of the voting.

ART. XII. *Meetings.*—The annual meeting of this association shall be held on the first Saturday in December of each year, and other meetings of the association shall be held on the first Saturday in April and the first Saturday in October, at such hour and in such place as the board of trustees shall direct.

The president shall call a special meeting whenever requested to do so by fifteen (15) members.

At all meetings of the association twenty-five (25) members shall constitute a quorum.

#### AMENDMENTS.

ART. VIII, SEC. 4. Change period (.) to semicolon (;) and add "but a member may, in case of temporary retirement from duty and leave of absence from the proper authority on account of sickness, on furnishing a capable substitute and assigning all excess of salary over pay of said substitute to this association, be placed temporarily on said list of annuitants."

Adopted February 20, 1891.

Louisville, Ky., has an incorporated body known as the Louisville Educational Association. There has never been any attempt on the part of this association to pay pensions or annuities to teachers. It has, however, paid out quite a large sum of money in cases of sickness and death among the teachers. If a teacher in the Louisville public schools is taken sick and requires any aid, the association renders all necessary service in the way of paying for nurses, physicians, and, in the case of death, defraying funeral expenses. This is all that has been attempted to aid the teachers in Louisville, Ky.

In Ohio the teachers are alive to the desirability of creating a pension fund by authority of the State. They are at present petitioning the State legislature to pass a law similar to those in force in Illinois and Michigan. Their petition outlines the provisions requiring time of service and sources of pension fund, namely, twenty to thirty years of service and 1 per cent tax on teachers' salaries. Like the teachers of other cities, those of Cincinnati maintain a society, with voluntary membership, which dates from 1891. This society pays an annuity to superannuated or retired teachers as well as aiding teachers in cases of sickness and death. In Cleveland a similar society pays sick benefits but not annuities.

In Washington, D. C., and in Baltimore, Md., the teachers maintain voluntary societies. They have succeeded in raising funds by holding bazaars, the proceeds of which gave them a capital to start with.

Milwaukee, Wis., Denver, Colo., Indianapolis, Ind., Pittsburg, Pa., Omaha, Nebr., Kansas City, Mo., and St. Paul, Minn., all report that neither State nor city authorities pay annuities; nor that the teachers have formed annuity societies.

In New York a law concerning pensions to teachers in rural common schools is found in an addition to the general school law, which is entitled:

AN ACT to provide conditional compensation for teachers of common schools in any town of the State who have taught therein continuously twenty-five years or more.

*The people of the State of New York, represented in senate and assembly, do enact as follows:*

SECTION 1. Upon the petition of twenty-five or more taxpayers of any town in the county of the State requesting the submission, at the next ensuing annual town meeting of such town, made not less than ten days before the accruing thereof, of the question of making provision by taxation upon the taxable property in such town for a sum of money sufficient to pay such teachers resident of such town, who have been employed in the common schools thereof for not less than twenty-five years, and have rendered continuous service in teaching for such period, with such intermission only as may have occurred in the allotment of school terms or from sickness, the town board of such town shall cause to be submitted to the taxpayers of such town, at the next ensuing town meeting, upon due notice thereof published in a newspaper printed in such town (if any paper be published therein), or printed or written notices posted in not less than ten public places in such town, the question whether a sufficient sum of money be raised from the taxable property within

such town to pay said teachers, as compensation for long and meritorious service, so long as said teachers reside in such town, upon the conditions, at the times, and in the manner hereafter provided.

SEC. 2. In the event of such petition being so made and presented to the supervisor of any town, and notice being given as provided in section one of this act, the town board shall furnish the necessary ballots in number and forms for the use of the voters of such town at the next ensuing annual town meeting, and shall provide separate ballot boxes for the reception of ballots cast thereat on the question submitted. One-half of the number of said ballots shall have printed thereon, respectively, "for teachers' pension fund," and the other half shall have printed thereon, respectively, "against teachers' pension fund," and such votes as may be cast shall be counted and returned by the officers presiding at said town meeting the same as other votes are counted and returned. If a majority of the votes so cast be found to be in favor of raising a sum of money sufficient to provide for such fund, and not otherwise, the town board of such town shall immediately thereafter proceed to ascertain what teachers of such class are entitled to the benefits conferred by this act and to receive their proportionate share of the money so voted to be paid; and said board shall require of every person applying therefor, who has taught in the common schools of such town for the period of twenty-five years or more, to make concise statement of the term of service, the districts in which he or she has taught, and the wages, monthly or weekly, received during the last year in which said teacher taught; which statement shall be acknowledged before any officer qualified to take acknowledgments, and filed in the office of the clerk of such town. Thereupon, and at the next annual meeting of the board of supervisors of the county, and at every annual meeting thereafter, the said board shall include in the tax levy of the town so voting as hereinbefore provided in favor of a teachers' pension fund, the amount necessary in each year, as estimated and reported by the town board of such town; which sum, when collected, shall be paid over by the collector of such town to the supervisor thereof, who shall pay out the said money to the teachers found to be entitled thereto in amount to each such teacher, in monthly payments, equal to one-half the sum received as teachers' monthly or weekly wages by each such teacher during the last year such teacher was employed to teach in the common schools of such town. And such teachers sharing in the money so appropriated and paid shall be allowed such amount in installments herein provided as long as they continue to reside in such town, but no longer; and they shall, in receiving the benefits conferred by this act be deemed to be retired from teaching and placed upon a roll kept by the town clerk of the town as superannuated and retired teachers; subject, however, if not physically disabled, to perform such service in the place of any teacher temporarily absent or disqualified as the school commissioner may require and direct, without additional compensation.

SEC. 3. When a vote has been had on the proposition provided to be so submitted by this act in any town, and such vote shall have been against the teachers' pension fund, another vote on the same question shall not be taken again within three years of the first vote so taken.

SEC. 4. This act shall take effect immediately.

For the city of New York a special law exists which empowers the educational authorities of that city to retire men at the age of 60; women at the age of 55 years, or after 30 years' service. This State law also empowers the board of education of that city to retain 1 per cent of the teachers' salaries. The law authorized the board of education of that city to retire, upon annuities, female teachers who have served in the city schools for 30 years or more, and male teachers who have served 35 years or more; but no teacher can be so retired



unless the city superintendent of schools shall first recommend the retirement, stating that "the teacher is mentally or physically incapacitated for the performance of duty."

The "retirement fund" consists chiefly of the following, with the interest and income thereof: "All money, pay, compensation or salary, or any part thereof, forfeited, deducted, or withheld from any teacher or teachers for or on account of absence from duty for any cause." The law is here quoted in full.

*The people of the State of New York, represented in senate and assembly, do enact as follows:*

SECTION 1. Section ten hundred and twenty-eight of chapter four hundred and ten of the laws of eighteen hundred and eighty-two, entitled "An act to consolidate into one act and to declare the special and local laws affecting public interests in the city of New York," is hereby amended by adding thereto the following subdivision, to be known as subdivision seven of said section:

7. The board of education of the city of New York is hereby given the general care and management of the public school teachers' retirement fund created by this act.

The comptroller of the city of New York shall hold all money belonging to said fund, and by the direction of the said board of education shall invest and pay out the same.

The board of education shall have charge of and administer said public school teachers' retirement fund as it shall deem most beneficial to said fund, and is empowered to make all necessary contracts, and take all necessary and proper action and proceedings in the premises, and to make payments from said fund of annuities granted in pursuance of this act; and shall from time to time establish such rules and regulations for the administration of said fund as it may deem best. And the comptroller of the city of New York shall report in detail to the board of aldermen of the city of New York annually, in the month of January, the condition of said fund, and the items of the receipts and disbursements on account of the same.

The public school teachers' retirement fund herein provided for shall consist of the following, with the interest and income thereof:

(1) All money, pay, compensation or salary, or any part thereof, forfeited, deducted, or withheld from any teacher or teachers for and on account of absence from duty for any cause. The clerk of the board of education shall certify monthly to the comptroller the amounts so deducted from the salaries of teachers during the preceding month.

(2) All moneys received from donations, legacies, gifts, bequests, or otherwise, for and on account of said fund.

(3) All such other methods of increment as may be duly and legally devised for the increase of said fund.

On and after the passage of this act the board of education shall, by amending its by-laws relating to the excuse of absence of teachers with pay, so provide that the aggregate of the several sums deducted or forfeited on account of absence from duty shall be fully adequate to meet the demand made upon the public school teachers' retirement fund, for the payment of annuities as herein provided.

Said board of education shall have power, by a two-thirds vote of all its members, and after a recommendation to that effect shall have been made by the city superintendent of schools, stating that the teacher is mentally or physically incapacitated for the performance of duty, to retire any female teacher of the grammar and primary schools, including special teachers in the same, who shall have taught therein during a period aggregating thirty years, and to retire any male teacher of said school who shall have taught therein during a period aggregating thirty-five years.



Any teacher so retired shall thereafter be entitled to receive as an annuity one-half the annual salary paid to said teacher at the date of said retirement, not to exceed, however, in any case the sum of \$1,000 per annum.

The board of education is hereby given the power to use both the principal and the income of said fund, and to manage, accumulate, and otherwise control the same as said board shall provide by its by-laws, and to pay the annuities hereinbefore mentioned, and shall have power from time to time to reduce the amount of annuities of all beneficiaries of said fund, provided only that such reduction shall be at the same rate per centum.

SEC. 2. All acts and parts of acts inconsistent with this act are hereby repealed.

SEC. 3. This act shall take effect immediately.

The superintendent of schools in the city of Buffalo, Mr. Henry P. Emerson, reports that there is a bill before the legislature of his State creating a retirement fund for public school teachers of Buffalo. This bill is here inserted because it shows decided differences from the special law passed for the city of New York. It contains no provision for retiring a teacher for breakdown before the expiration of the limit of twenty-five years. The women teachers of Buffalo have formed a mutual benefit association which pays to members who become totally disabled, or to their heirs in case of death, a sum raised by an assessment on each member of \$1. The number of members is about 250. The following is the bill referred to, which has found the indorsement of the teachers of the city of Buffalo by a vote of 785 to 161:

SECTION A. The mayor of the city of Buffalo, the superintendent of education, the chairman of the board of school examiners, the president of the Principals' Association, and the president of the Women Teachers' Association shall constitute a board of trustees, who shall have general care and management of the public school teachers' retirement fund created by this act.

SEC. B. The said board of trustees is empowered to make payment from said fund of annuities granted in pursuance of this act, and to take all necessary and proper action in the premises, and from time to time establish such rules and regulations for the administration and investment of said fund as it may deem best.

SEC. C. The public school teachers' retirement fund, created by this act, shall consist of the following moneys, to wit:

1. An amount not to exceed one per cent per annum of the respective salaries paid to the superintendent of education, supervisors of grades, special teachers, principals, and assistant teachers, to be taken from said salaries in four equal installments.

2. All moneys received from donations, legacies, gifts, bequests, or otherwise for and on account of said fund.

3. All moneys which may be derived by such other methods as may be duly and legally devised for the increase of said fund.

SEC. D. All persons employed in the department of education and hereinafter mentioned as contributors to said fund shall become annuitants under this act in manner following, to wit:

Any female teacher who shall have taught in public schools for 25 years, and any male teacher who shall have taught in public schools for 30 years may be retired by the superintendent and become an annuitant of this fund during life: *Provided, however*, That four-fifths of such service shall have been rendered in the public schools of the city of Buffalo.

And any female teacher who shall have taught in public schools 35 years, and any

male teacher who shall have taught in public schools for 40 years, shall have the right to retire and become an annuitant of said fund during life: *Provided, however,* That four-fifths of such service shall have been rendered in the public schools of said city.

SEC. E. Any teacher so retired or retiring shall receive as an annuity an amount not to exceed one-half of the annual salary paid to said teacher at the time of such retirement, said annuity to be paid quarterly: *Provided, however,* That such annuity shall not exceed the sum of six hundred dollars (\$600) which shall be paid by the said board of trustees out of the fund created in accordance with this act, in the manner provided by law for the payment of salaries.

SEC. F. No teacher shall become an annuitant under this act until he or she shall have paid into the retirement fund an amount equal to 20 per cent of his or her annual salary at the time of retirement.

SEC. G. Said board of trustees is hereby given the power to use both the principal and the income of said fund for the payment of annuities hereinbefore mentioned, and shall have power to reduce, from time to time, the amount of all annuities: *Provided,* That such reduction shall be at the same rate in all cases.

SEC. H. If at any time a teacher who shall be willing to continue to teach shall not be reemployed or shall be discharged before the time when he or she would, under the provisions of this act, be entitled to an annuity, then such teacher shall be paid back all the money which may have been deducted from his or her salary under the provisions of this act.

SEC. I. The superintendent of education shall, quarterly, in making the pay rolls for the school department or the persons entitled to share in the fund hereby created, deduct a sum not to exceed 1 per cent of the amount of salary of such persons, and shall certify the amount of such deductions and the names of the persons from whose salaries such deductions shall have been made; and such certificate shall accompany the pay roll, and a warrant for the amount of the deductions so certified shall be drawn payable to the order of the city treasurer, who shall retain the same subject to the disposal of the said board of trustees hereinbefore mentioned.

SEC. J. The treasurer of the said city shall be custodian of said fund and he shall execute a bond to the city with good and sufficient securities to be approved by said board of trustees conditioned for the faithful performance of the duties of his office. Such bond shall be filed in the office of the clerk of the city, and in case of a breach of the same or the conditions thereof, suit may be brought on the same in the name of the city for the use of said board or of any person or persons injured by such breach. The said treasurer shall report to the said board of trustees the amount and condition of said fund on June 30 of each year.

This act shall take effect September 1, 1896.

The retention of 1 per cent of the salaries per month seems to be generally accepted as the proper premium. Portions of the constitution of the Teachers' Mutual Benefit Association of the city of New York are here inserted owing to their peculiar fitness for the purposes for which they are intended.

#### CONSTITUTION.

ART. V.—*Membership*.—SEC. 1. Any teacher or superintendent of schools, in the permanent employ of the board of education of the city of New York, or of the board of trustees of the college of the city of New York, or of the board of trustees of the normal college of the city of New York, may be admitted to membership in this association by a two-third vote of the whole board of trustees, by ballot, and on payment of an initiation fee of three dollars, and such dues as may be required by this constitution. Questions arising as to what constitutes permanent employ shall be determined by the board of trustees.

SEC. 2. Any person eligible to membership, applying for admission within three years of the time at which such person became eligible, shall pay dues only from date of admission. In all other cases applicants shall pay dues from the date at which they became eligible.

Back dues may be paid as follows:

The ward director shall compute the amount due by said candidate from date of eligibility, and charge such sum as a debt against such candidate; said debt to be paid as follows:

Twenty per cent of the entire amount of said indebtedness, without interest, must be paid annually in ten equal monthly installments in addition to the regular dues; said amount to be collected by the department collector, and transmitted to the director with the regular monthly dues and statement.

Should any member admitted upon the before-mentioned terms become an annuitant before said debt shall have been paid in full, the balance due shall be deducted from his or her first quarter's annuity.

SEC. 3. Members who, at the time of the adoption of these amendments shall have paid dues from date of organization, shall be entitled to count their membership from such date.

SEC. 4. Any member voluntarily withdrawing from the profession, after a membership of two or more years, shall be entitled to withdraw a sum of money equal to one-third of all the annual dues paid by said member into the treasury of the association.

SEC. 5. Application for membership may be made at any time; but such application must be made in writing, and must be accompanied by the initiation fee and the first instalment of the annual dues. No application will be entertained except on the conditions herein set forth.

SEC. 6. No person whose term of service shall at the time of application exceed fifteen years, shall, after the expiration of three years from date of organization, be eligible to membership.

SEC. 7. The board of trustees shall have power, under such rules and regulations as said board shall adopt, to admit persons to honorary membership.

ART. VI.—*Dues*.—SEC. 1. The basis for estimating the annual dues for any member for any given year shall be the annual salary of said member on the thirty-first day of December of the preceding year. In case of special teachers the dues shall be estimated on the salary received for service in the public schools during the year preceding the first of January of each year.

SEC. 2. The annual dues of any member receiving a salary of \$1,000 or less per annum shall be one per cent of the annual salary of said member.

SEC. 3. The annual dues of all members whose salary exceeds \$1,000 shall be \$10, and fifty cents additional for every \$100 or fraction of \$100 by which the said salary shall exceed \$1,000, but the annual dues of no member shall exceed \$20.

SEC. 4. The annual dues shall be paid in ten equal instalments, one for each month of the year except July and August. These monthly instalments shall be paid not later than the 20th of each of the said months.

ART. VII.—*Funds of the association*.—SEC. 1. The funds of the association shall be known as the permanent fund and the annuity fund.

SEC. 2. *Permanent fund*.—(a) The money received from donations, legacies, etc., and the total amount received from the initiation fees and annual dues, less the current expenses during the first two years from the date of organization, shall, together with 50 per cent of the amount of the initiation fees and annual dues received thereafter, constitute the permanent fund except as is hereinafter provided.

(b) All donations and bequests, unless ordered differently by the donors or testators or by the board of trustees, shall be added to the permanent fund of the association, and no disbursements of any kind whatsoever shall be made from the principal of the said permanent fund.

(c) When the permanent fund shall have reached the sum of \$50,000 only twenty



per cent of the annual dues and initiation fees shall be added to it thereafter. When the permanent fund shall have reached the sum of \$100,000 ten per cent of the annual dues and admission fees shall be added to the same until the said fund shall have reached the sum of \$200,000. When the permanent fund shall have reached the sum of \$200,000 no portion of the initiation fees or annual dues shall be added to it thereafter, but the entire income from the permanent fund and the annual dues and the initiation fees shall be placed to the credit of the annuity fund.

SEC. 3. *Annuity fund.*—(a) After the expiration of two years from date of organization fifty per cent of the annual dues and initiation fees and the entire income from the permanent fund shall be set aside for the payment of annuities subject to the provisions of the following clauses of this section:

(b) When the permanent fund shall have reached the sum of \$50,000, eighty per cent of the said annual dues and initiation fees, together with the entire income from the permanent fund, shall be placed to the credit of the annuity fund.

(c) When the permanent fund shall have reached the sum of \$200,000, the entire income from the permanent fund, together with the annual dues and initiation fees, shall be placed to the credit of the annuity fund.

(d) No portion of this fund, or the income thereof, shall in any way be added to the permanent fund; but the whole fund shall be used only for the current expenses of the association and for the benefit of the annuitants in the manner prescribed by this constitution and by-laws.

(e) All expenses of this association shall be paid out of this fund.

SEC. 4. *Disposition of funds.*—The permanent fund of this association shall be invested in bonds of the United States, or of the State or city of New York, or in bonds and mortgages on productive real estate in the city of New York and Brooklyn; but no loan upon real estate shall be made for more than 60 per cent of its value.

SEC. 5. *Annual subscribers.*—Any person agreeing to subscribe five dollars, or multiples of five dollars, up to one hundred dollars, shall be known as an annual subscriber of the Teachers' Mutual Benefit Association, and as such shall have his or her name printed on all reports published by the association.

ART. VIII. *Retired members.*—SEC. 1. All members who shall become either physically or mentally incapacitated for school work, all female members after a term of service of thirty-five years, and all male members after a term of service of forty years, may be retired; and upon such retirement shall receive an annuity, as provided in Article IX. The said terms of service of those who join this association within the first three years from the date of organization, shall have been commenced in this city or elsewhere; but of those who shall join after the said three years, the terms of service shall have been commenced in the public schools of this city.

SEC. 2. Members desiring to be placed on the retired list on account of having completed the required term of service, shall make application in writing to that effect to the board of trustees, which board shall thereupon retire all such applicants.

SEC. 3. Any member desiring to be retired on account of disability, shall make application as above; and if such disability be established to the satisfaction of the board of trustees, they shall retire such member. Whenever, in the opinion of the board of trustees, such member shall become thereafter restored to health and capable of attending to business, the annuity may, by a two-third vote of the whole board of trustees, be withdrawn from the same.

SEC. 4. No member shall be entitled to any pecuniary benefit until after the expiration of two years from date of membership.

Any person joining this association after January 1, 1894, shall not receive any pecuniary benefit until after five years of membership.

*Patrons.*—Any person donating at one time two hundred dollars or more, shall be designated as a patron of the Teachers' Mutual Benefit Association, and as such shall have his or her name printed on all reports published by the association.



ART. IX. *Annuities*.—The annuities shall be 60 per cent of the yearly salary at the time of retirement; but no annuity shall exceed the sum of \$600. Whenever the annuity fund shall be insufficient to pay in full all annuitants, the whole of said fund, less the expenses, shall be divided equitably among the annuitants.

ART. X. *Discipline*.—SEC. 1. The name of any member who, in the judgment of the board of trustees, shall have voluntarily left the profession, or that of any member who shall, in the judgment of the board of trustees, be guilty of conduct unbecoming a member of the profession, may be dropped from the roll of the association by a majority vote of the whole board of trustees, and the membership of such person shall thereupon terminate.

SEC. 2. Members who lose their positions for causes other than those already mentioned may be continued in membership, under such rules and regulations as the board of trustees may prescribe.

SEC. 3. Any member who shall be in arrears for dues shall be liable to have his or her membership declared forfeited by a majority vote of the whole board of trustees.

SEC. 4. Members who lose their positions for any other cause than voluntary resignation, may be continued in membership, and receive such aid as the board of trustees may prescribe.

In Brooklyn, N. Y., the teachers have formed a society (entirely voluntary), but its funds are not yet adequate to pay annuities.

In St. Louis, Mo., the first steps toward the establishment of an annuity fund have been taken; the State legislature has authorized the board of public schools to establish such a fund; the money is to be supplied by a voluntary tax of about 1 per cent on salaries paid.<sup>1</sup>

In California a State law exists for the purpose of creating and administering a "Public school teachers' annuity and retirement fund in the several counties and cities of the State." Up to January 1, 1896, six teachers have retired under this law. This being a general law for the entire State, it seems desirable to publish it in full.

*The people of the State of California, represented in senate and assembly, do enact as follows:*

SECTION 1. The superintendent of public schools, the county treasurer, and the chairman of the board of supervisors of each county, or city and county, and their successors in office, are hereby constituted a board of trustees of the "School teachers' annuity and retirement fund," to provide for the disbursement of the same, and to designate the beneficiaries thereof, as hereinafter directed, which board shall be known as the "School teachers' retirement fund commissioners."

SEC. 2. They shall organize as such board by choosing one of their number as chairman and one as secretary. The county treasurer shall be ex officio treasurer of such fund. Such board of trustees shall have charge of and administer said fund and order payments therefrom according to the provisions of this act. They shall

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<sup>1</sup>The Missouri State legislature, in March, 1895, passed an act authorizing the teachers and the school board of St. Louis to organize for the purpose of providing incapacitated teachers with pensions or annuities. By this act female teachers who have served twenty-five years and male teachers who have served thirty years are entitled to annuities, which are derived from (a) a deduction of not exceeding 1 per cent of the teachers' salaries, (b) donations, bequests, etc., (c) money derived from other legal methods of increment. The teachers of St. Louis are about to organize under said act. The relief fund is to be controlled by a board of trustees, to consist of the superintendent of public schools, four members of the school board chosen by that body, and two representatives chosen by the teachers who may signify their desire to become members of the organization.

report annually in the month of July to the board of supervisors the condition of such fund, and the receipts and the disbursements on account of the same, with a full and complete list of the beneficiaries of said fund, and the amounts paid to each of them.

SEC. 3. Whenever any teacher entitled to the benefits of this act has taught in the public schools of this State for a period of twenty years, and shall become incapacitated from performing the duties of a teacher, such teacher shall, at his or her request, and may, in the discretion of the board of school trustees, without such request, be retired as a teacher, and shall thereafter receive an annuity out of said fund of forty-five dollars per month; and if such teacher has taught for twenty-five years or over, shall, under the same circumstances, be retired upon an annuity of fifty dollars per month, such payments to be made out of the fund in the different counties in proportion to the length of time taught by such teacher in each county; but in case any teacher should be retired within three years after the passage of this act, he or she must, in order to receive the benefits thereof, pay into the fund provided for in this act the sum of three hundred dollars; *And provided further*, That if at any time there shall not be sufficient money in said fund to pay the warrants drawn thereon as presented for payment, the treasurer shall register said warrants, and mark on the back of each these words: "Presented for payment this — (giving day, month, and year) and not paid for want of funds."

Treasurer of ——— County.

And such warrants shall be paid in the order of registration and bear interest at five per cent per annum from date of registration.

SEC. 4. The board herein provided for shall hold quarterly meetings on the third Saturday of January, April, July, and October of each year at the office of the county superintendent of public schools. Such board shall biennially, at the meeting in January, select from its members a president and secretary. It shall issue warrants, signed by its president and secretary, to the persons entitled thereto for the amount of money ordered paid to such persons from such fund by said board, stating therein for what purpose such payments are made. It shall keep a record of all its proceedings, which shall be public. It shall at each quarterly meeting send to the treasurer of the county, or city and county, and to the auditor of such county, or city and county, a list of all persons, if any, entitled to payment out of the fund provided in this act, stating the amount of such payments and for what granted, which lists shall be sworn to as correct by the president and secretary of said board, and the auditor shall then enter a copy of said list in a book to be kept by him for that purpose, known as the "School teachers' annuity fund book." When such list has been entered in such book by the auditor, he shall transmit the same to the board of supervisors of such county, or city and county, which board shall order the payment of the amount named out of the fund provided for by this act. A majority of the members of said board shall constitute a quorum for the transaction of business.

SEC. 5. In addition to the powers hereinbefore granted to said board, it shall have the further power, first, to subpoena and compel witnesses to attend and testify before it in all matters relating to the operation of this act, and any member of said board may administer an oath or affirmation to such witness in the form prescribed in courts of justice; second, to provide for the payment out of said fund of all expenses, such as for printing, for stationery, and for postage stamps, but the members of said board, as such, shall serve without compensation; third, to make all such rules and regulations for the transaction of their business, from time to time, as may be necessary.

SEC. 6. To provide a fund for the payments provided for in this act, the secretary of the board of education of each municipality shall certify monthly to the treasurer of such municipality and the board of trustees in every school district outside of such municipalities shall certify and pay over in like manner to the county treasurer of each county, one per cent of the amount due each teacher as salary for the

previous month; and all moneys derived from any other source shall be paid to the county treasurer to the credit of such fund. Such board shall also receive and place to the credit of said fund all moneys received from donations, legacies, gifts, bequests, or otherwise.

SEC. 7. This act shall be binding only upon public school teachers who, after the passage of this act, shall sign and deliver to the board of education of the municipality in which they are employed a notice in substantially the following form:

\_\_\_\_\_, \_\_\_\_\_, 1895.

*To the board of education (or trustee, as the case may be) of \_\_\_\_\_:*

You are hereby notified that I agree to be bound by, and desire to avail myself of the provisions of the act of the legislature of California, approved \_\_\_\_\_, eighteen hundred and ninety-five, entitled "An act to create and administer a school-teachers' annuity and retirement fund" in the several counties and cities and counties in this State.

\_\_\_\_\_, \_\_\_\_\_,  
*Public School Teacher.*

And no teacher employed in the public schools of this State at the time of the passage of this act failing to give such notice shall be entitled to any benefits under this act (or) subject to any of its burdens. (And no teacher employed after the passage of this act who, within ninety days after such employment, fails to give such notice, shall share the benefits of or be subject to the burdens of this act.)

Such notices shall be delivered to the treasurer of such municipality, and a copy thereof to the commissioners of said fund, and preserved as a record for their information.

*Pensions paid to teachers in Europe.*—A review of the pension laws in force in European countries will show that in Europe the conviction is prevalent that it is a wise policy to pension teachers. It aids in establishing the profession of teaching, and thus aids materially in securing good results in public education, which otherwise might not be secured. All European countries follow this policy except Spain and Great Britain; but in Great Britain the teachers themselves have recently established a union which in form of a mutual aid society pays annuities to disabled teachers. A similar enterprise is on foot among the teachers of other states where pensions are granted by the government, so that Spain is the only country where the teachers have no hope for relief in old age or in case of breakdown.

The German states may be mentioned first. All the 26 states that form the German Empire pay pensions both to teachers and their widows and orphans. Their pension funds are nearly one hundred years old. The conditions of the various funds are not the same throughout the country. In Prussia, for example, the fund is formed by the state and the community, and the teachers pay a nominal annual premium. Early breakdown, say after ten years, is usually met by an annuity equal to one-fourth, and the maximum pension is fixed at three-fourths of the salary. In every case a teacher is obliged to pay as an entrance fee the first month's salary of his definite employment; after that the fee is very trifling, and the state bears not less than one-half of all the expenditures for pensions. But in Germany there exists a provision stranger than can be found in the whole of the examination of this question. The community may recover part of its contribution to the pension of its teacher from the salary of his successor. A system of



compulsory retirement produces a steady flow of promotion, but it seems hard for a teacher to be fined for his own promotion. The teachers' unions, which are quite numerous and which form a national union numbering some 65,000 members, make a series of contributions toward a fund for life insurance, and this is paid out in the form of an annuity to the family of the contributor. It is a characteristic of the parental government of the states in Germany that defaulters of pensions and defrauders of pension funds are not known in the history of the fund since its beginning.

In Austria the pension schemes vary in different parts (crown lands) of the Empire. One example will suffice: The teachers pay annually 2 per cent of their salary, and the first tenth of the first year's salary, as well as the first tenth of every increase; the remainder of the fund is supplied by the state and the communities. The pensions vary from a fixed amount equal to one and one-half times the salary paid once for all when incapacitated after less than ten years' service to an annuity of the full salary after forty years' service. Annual payments are also made to the widow and children of any teacher, no matter what length of service; the amount thus paid varying from one-fourth to a little more than one-half of the salary enjoyed by the teacher at his death. The policy of pensioning teachers in Austria proper—that is, the German portion of the Austrian Empire—is as old as it is in Germany, Austria having been a part and parcel of Germany and of the German Confederation until 1866.

In the other part of the Austrian Empire, in Hungary, the pension scheme dates from 1875. During the first three years the Government gave a subsidy of \$25,000 annually, of \$50,000 each for the next three years, and after that a yearly donation of \$75,000. The teacher worn out at an early age finds relief, and 40 per cent of the husband's pension passes to the widow and children. Here there is a sort of surrender value given, but only on proof of inability to continue in the service. It is small in amount and limited to the first ten years of service. After that time provision for superannuation comes into play.

Sweden,<sup>1</sup> Norway,<sup>2</sup> and Denmark,<sup>3</sup> and also most of the cantons of Switzerland have recognized the advisability of removing worn-out teachers. In Russia<sup>4</sup> the teachers in town schools also may look forward to a pension. It seems to be the general policy in Russia, as well as in the western countries, to secure a long tenure of office to the teachers whom the state has prepared for their profession. In Germany it is claimed that the teacher being an officer of the state must owe his professional preparation to the state, and the prospect of being pensioned will prevent him from deserting the profession, for contributions to the pension fund are never returned in case the teacher leaves the profession.

<sup>1</sup> See Ann. Rep. of 1888-89, Vol. I, p. 207.

<sup>2</sup> See Ann. Rep. of 1889-90, Vol. I, p. 532.

<sup>3</sup> See Ann. Rep. of 1889-90, Vol. I, p. 499.

<sup>4</sup> See Ann. Rep. of 1890-91, Vol. I, p. 216.



Holland has had a state scheme of pensioning teachers since the year 1878, and teachers can claim retirement with a pension if incapacitated after ten years of service, or for old age at 65. The pension is calculated at the rate of one-sixtieth of the last year's salary for eight years of service up to a maximum of two-thirds of the salary. To provide a fund for this purpose the teachers contribute 2 per cent of their salaries and the state provides the remainder. Two per cent paid from the twentieth to the sixty-fifth year of age will purchase an annuity equal to 38 per cent of the salary on which the deduction has been made. Every pension received before reaching the age of 65 must be paid entirely by the state, as well as a large portion of all pensions paid at the age of 65. There is no repayment, and voluntary efforts on the part of the teachers have secured annuities for widows and orphans.

In Belgium the fund is formed in this way: Two-fifths is paid by the community, two-fifths by the state, one-fifth by the province, and nothing by the teacher. The pension may reach \$1,000 per annum. The amount of annuity is calculated at the rate of one fifty-fifth of the average of last five years' salary for every year of service, together with this peculiar addition: The possession of certain certificates, i. e., for drawing, music, etc., counts for further years of service to a maximum of four. Teachers may retire after five years of service if incapacitated through school work, but if not so disabled the superannuation begins at the age of 50 with thirty years of service; or at the age of 60 with only fifteen years' service. The teachers contribute nothing to the pension fund, and naturally they have no claim on it for repayments of any sort; but the moment they commence to receive salary from either of the contributing bodies mentioned above they are compelled to submit to a deduction of about 4 per cent of their salaries to provide a fund for the widows and orphans. The widow of a teacher who had seen thirty years' service would receive from this fund an annuity equal to 36 per cent of the husband's average salary. A smaller amount is paid for each minor child.

In France the teachers are on the same footing as other servants of the state; the salaries are paid subject to a deduction of 5 per cent, plus one-twelfth of the first year's salary, plus one-twelfth of each increase of salary for the first year of such increase. This second form of deduction is productive of great evil. A teacher does not receive any salary until the end of the second month after his appointment, and it is said that they are frequently compelled during that time to contract debts with all their consequent worry and degradation. As a rule, the pension is payable after thirty years' service, the other factor being incapacity or 60 years of age. The amount of pension depends on years of service—one-sixtieth of the average of the last six years for every year served. There is some provision for meeting the case of those who break down while employed, but it is small in amount and surrounded by a multitude of conditions. The widow of a teacher may receive one-third of the pension to which her husband would be entitled.

In Italy teachers have but recently enjoyed the advantages of pensions, payments from the fund beginning in the year 1889. For ten years prior to this contributions were being made in order to form a capital sum from which to commence payments. The communities, provinces, and the state each paid to the central fund 5 per cent on the minimum salary of the various grades of teachers, and during the same period the teachers paid either 3 per cent or 2 per cent, according to the age of the contributor. In addition to this the state appropriated a subsidy of \$60,000 per annum during these ten years. The contributions have now reached their normal scale of 2 per cent on the minimum salary, such amounts being paid by each of the contributing bodies mentioned above, or 8 per cent in all. The pensions are, as a rule, payable when the teacher reaches the age of 60 with forty years' service, or 65 with thirty-five years' service; the amount of the annuity should be noted, for it is equal to the average salary of the last five years. Cases of difficulty are here also recognized. It is seen that something must be done to meet the requirements of those who break down before reaching the pension age of 60, and therefore a reduced scale of superannuation is applied to those who have seen twenty-five years' service. With less than twenty-five years' service the teacher has no claim, nor does any provision appear to exist for repayment of contributions at death, or for any annuity for the family of the deceased.

In Greece teachers contribute 5 per cent on the salaries, and the state finds the remainder in order to superannuate teachers after twenty-one years' service, regardless of age.

In Portugal provisions are made for pensioning those engaged in education, but the details are not available, except this one fact, that no arrangements are made for meeting the requirements of the deceased teachers' families.

From the foregoing exposé it is seen that there is no uniform scheme of pensioning, but they all seem to follow leading principles, namely, that thirty-five to forty years is the average maximum of teachers' service, and 60 to 65 years the maximum of age. The amount of pension varies from one-third to the whole of the teachers' average salary. Generally it is found that where a pension scheme is maintained that there also pensions are paid to the widows and orphans.

This Bureau is indebted to the State Department for a statement on Government pensions for public teachers in Belgium, sent by Hon. George W. Roosevelt, United States consul at Brussels. The document is here subjoined, because it offers an insight into the minutiae of the pension laws in force in that country:

*Government pensions for public school teachers in Belgium.*—In 1842 there was established in this Kingdom a fund destined to pay pensions to retired or disabled public school teachers.

The fund was supported by reserving a certain percentage of the yearly salary of each employee of the public schools. On May 16, 1872, there was a law passed suppressing this fund, and making the Government responsible for such pensions; that

is, the State was taxed two-fifths, the province one-fifth, and the commune two-fifths of the amount necessary for the appropriation without permitting contribution from the parties interested. Those entitled to enjoy the benefit of this law are teachers who have served thirty years, and who are 50 years of age. Ten years' service and incurable disease preventing the teacher from ever resuming his functions, or five years' service and incurable infirmity received in the discharge of his duty, or 60 years of age, with fifteen years' service, entitle to the pension. Professors of secondary Government schools enjoy the same rates of pension, except in cases of infirmity, when the beneficiary must have arrived at the age of 55 years. The pension is calculated by years of service at the rate of one fifty-fifth per cent of the average salary during the last five years of active work. Teachers and professors connected with the high schools are retired and pensioned when permanently incapacitated on account of infirmities coming from acceptably performing their duty, or when they have attained the age of 70 years.

Professors and other members of the teachers' corps of the Government universities or special schools annexed thereto, normal, grammar, and scientific schools, veterinary and agricultural schools, as well as civil professors and other members of the civil corps connected with the Government military schools, are entitled to pension, as well as Government inspectors of State universities, directors and inspectors of classes in special schools annexed to Government universities, directors of normal, grammar, and scientific, veterinary, and agricultural schools. When these functionaries have reached the age limit they may, if they desire, be authorized to continue their labors or certain courses as they may elect. The authorization to continue duty is at all times revocable.

*When they may ask to be retired.*—When they have had thirty years' academic service, irrespective of age; when they have reached the age of 70 years and have had ten years' academic service; after twenty years' academic service if suffering from permanent and serious infirmity.

The retired pension is estimated by the amount of salary and extra pay received during the last five years of active service.

Professors and other members of the teachers' corps who on account of infirmities are prevented from continuing their functions, but not having reached the age limit or number of years of service requisite to demand pension, may be pensioned irrespective of age, after five years' service. The pension for such applicants, likewise for professors and others who have reached the age of 70 years, but are not entitled to be retired, is estimated and rated at one-sixth of the salary and extra pay received during the last five years of service.

Each year of academic service above five years is rated at  $\frac{1}{3}$  per cent over and above the salary.

No pension can exceed the average or mean salary which serves as a basis of estimation.

*Widows and orphans' pension fund.*—There is established in the department of public instruction, under the immediate supervision of the minister of the interior, a pension fund for the benefit of widows and orphans of professors, teachers, and employees connected with all public institutions of learning in Belgium.

The fund is maintained by a yearly assessment on the salary of each person connected with the Government or public schools. The fund is administered by a council composed of seven members, as follows: A secretary-general, or director-general, acting as president and appointed from the department of public instruction, one member selected from among the academy professors, two members from the intermediate schools, one from the primary schools, and two chosen indiscriminately from among the contributors. The members of the council are appointed by royal decree for the term of six years. The commissions are, however, always revocable.

All the rules formulated by the council are subjected to the approval of the minister of public instruction. All salaries, or extra salaries, incidental or extra pay of



professors, teachers, supernumeraries, and substitutes connected with Government or public schools are assessed as follows for the benefit of the fund:

Salary of 3,000 francs (\$579) or more, 3 per cent; salary of less than 3,000 francs,  $2\frac{1}{2}$  per cent. Teachers who have not contributed to the fund, and whose compensation amounts to 1,200 francs (\$231.60) per year, are taxed one month's pay, or if less than this amount, fourteen days' pay.

In the event of increase of salary, extra salary, incidental or extra pay, the first two months of such compensation is deducted for the benefit of the fund, as well as all sums derived from leave of absence, absence, or disciplinary punishment.

When functionaries of the schools are already married or marry subsequently, and desire to participate in the fund, they must submit to a yearly assessment of  $1\frac{1}{4}$  per cent on their salary, extra salary, incidental or extra pay, during ten years, commencing from the first day of the month following his marriage, or from entry upon duty if married. After the expiration of the ten years the functionary continues to pay a permanent tax of 1 per cent; also an additional tax of 1 per cent for each year's service prior to marriage. The last sum is calculated on all compensations which the functionary may have received before his marriage, or, according to the ease, from his assumption of duty. If, however, a written declaration is made of the intended marriage, or expected appointment three months prior to either event, a smaller percentage is deducted.

In case of death or divorce of the wife, the amount of 1 per cent following the ten years ceases after the first of the month following the death or divorce. In case of death of a contributor, leaving a widow entitled to pension, the amount deducted from the salary of the contributor is estimated by the  $1\frac{1}{4}$  per cent paid during ten years, as well as the 1 per cent following. If the total exceeds, or falls short of, the amount of one year's pension for the widow the difference is deducted or added. If, however, the contributor has not fulfilled his obligations to the fund, 10 per cent is deducted from the widow's pension until such obligations have been paid in full.

To a great extent the amount received by a widow is estimated by the difference in age existing between her and her late husband. For instance, if there is a difference of from twenty to twenty-five years, a deduction of 1 per cent is made, from twenty-five to thirty years  $1\frac{1}{2}$  per cent, from thirty to thirty-five years 2 per cent. Contributors cease to pay into the fund at date of death or divorce of wife, unless there are minor children under 18 years of age.

Functionaries actually in service who may anticipate marriage, or for those desiring to contribute who may be thirty-five years older than the wife, neither the widow of such contributor nor children issue of said marriage are entitled to pension.

During marriage, or after dissolution of same, and until the children have reached the age of 18 years, a deduction is made on the retired pension of contributors as follows: two per cent if the pension is or exceeds 2,000 francs (\$386),  $1\frac{1}{2}$  if the pension is from 1,000 (\$193) to 2,000 francs (\$386).

Contributors who may resign, be dismissed or suspended from their functions, and who desire to reserve the right to pension for wives and children, must within six months following the severance from duty, promise to pay quarterly in advance to the fund a sum equivalent to the amount assessed on their last salary.

*Right to pension.*—No widow is entitled to pension unless the functionary has contributed during five years to a fund established by the Government for widows, nor if the marriage was less than three years, unless there are children issue of said marriage.

If a woman marries a functionary who may have resigned or been dismissed, and if there are children issue of such marriage, neither mother nor children are entitled to pension. Children of contributors, whether by first or second marriage, are entitled to pension as orphans until they are 18 years old, where there is no widow admissible to pension, and where the contributor has subscribed to the fund during five years.

When the wife of a functionary dies after having contributed to the fund for five



years or less, and at her death leaves minor children, they are entitled to pension from the mother's contributions even though the father still lives. If the husband is also a contributor the children are, at his death, entitled to pension by reason of the amount paid into the fund by him, notwithstanding the fact that they receive a pension from the mother's contribution. Only legitimate or legitimized children are entitled to pension. Widows and orphans of functionaries deceased through accident or infirmities incurred in the discharge of their duty, independent of length of service, are entitled to pension.

*Basis of pension.*—The average pension is fixed at 16 per cent of the average salary. It is increased 1 per cent of the salary for contributions for each year after ten years. This increase, however, is not permitted to exceed 100 francs (\$19.30) per year.

A divorced woman or widow who remarries forfeits all right to pension. When a widow is no longer entitled to pension the children enjoy the rights to same, exactly as if they were orphaned of both mother and father.

Application for pension is addressed to the minister of public instruction and must contain the address of either the widowed applicant, the guardian of the orphans or minor children.

The widow without minor children incloses copies of certificates of her birth and birth of deceased husband, certificate of marriage, as well as certificate of death of husband, and a legalized certificate from the communal authorities testifying that the marriage was not dissolved by divorce. A widow having children under 18 years of age incloses in her application, besides the certificates above mentioned, certificates of birth of children and certificates showing that the children are still living.

A guardian for the orphans incloses in his application similar certificates. The length of time permitted wherein to file application for pension is three years from date of death. Payments are made quarterly and commence from the first day of the month following date of death.

The widow upon drawing pension must produce the following papers: Certificate of life; certificate showing that she has not remarried. If she has children under 18 years of age, a certificate stating that each child is alive.

Donations and legacies made to the fund are accepted by the minister of public instruction, under the rules prescribed for acceptance of donations and legacies to public institutions.

GEO. W. ROOSEVELT,  
*United States Consul.*

UNITED STATES CONSULATE,  
*Brussels, November 12, 1895.*

The daily press of the United States has taken up the question of "paying pensions to civil officers," and discusses it with all fairness, but rarely adds any new facts or arguments either in support or opposition to pensions. The Newark (N. J.) Evening News, however, published (May 20, 1896) an article prepared by one of the most competent insurance experts, who is likewise thoroughly informed on the various phases of public education. The article refers to the law in New Jersey and is here reproduced on account of the well-arranged mathematical calculations it contains. The author claims that the fund created by the retention of 1 per cent of the teachers' salaries is insufficient to meet the demands which will inevitably be made upon it in future. A much higher percentage of contributions, he thinks, is necessary if it is to meet its promises; and he argues that State aid will have to be invoked, or large outside contributions be received, to make the pension fund a success. The editor discusses the article at length. Since

his comments seem to reflect public opinion, they are here inserted also at the close of the article:

In view of the fact that during the next two or three weeks the public-school teachers of Newark must decide whether or not they will avail themselves of the recent State law providing for a retirement fund, it may be of some value to consider the plan of this law in a practical way and see if it can accomplish all that is claimed for it.

In the first place, there can be no reference to any other experience in which the conditions sufficiently resemble the present ones to form a precedent. Two or three States have passed teachers' pension laws, but so recently that as yet no data from that source are available. In Europe the retirement of teachers under pensions has been going on for many years—in one country for eighty years, at least. But there the State provides all, or almost all, of the fund. The societies merely supplement the work done by the Government.

In all of the following European States provision is made from the State funds for pensions for teachers: England, Scotland, France, Prussia, Saxony, Bavaria, Austria-Hungary, Spain, Portugal, Italy, Greece, Holland, Belgium, Denmark, Norway, Sweden, Finland. In New Jersey, however, there is no assurance of help from the State, and we must look at the plan of the fund itself to see how much it will do for those who put their trust in it.

The general plan of the "teachers' retirement fund" is this: Teachers desiring to receive the benefits under the law shall subscribe 1 per cent of their salaries monthly as long as they remain in the school service. Subscribers who have taught twenty years may, upon being judged incapacitated for teaching, with or without their own request, be retired upon an annuity of half their average annual salary for the last five years of teaching. This annuity, however, must not exceed \$600 nor be less than \$250, and teachers of twenty years' standing retiring under this plan within five years of the establishment of the fund must pay 20 per cent of their annual salary upon retiring. Teachers resigning after being subscribers five years or more may withdraw one-half of all they have paid in. Provision is also made for the possible emergency of there being no money on hand to pay the annuities as they fall due. They are to be paid in their order, as soon as there is a sufficient amount on hand, together with 5 per cent interest from the date when due.

It is the object of this article to estimate the progress of this fund for the next twenty years, and Newark as the largest city in the State will serve as a good illustration, especially as there are at hand as data the reports of the city board of education since 1856.

One's first impression from a cursory reading of the law is that the whole scheme is absurd. One per cent of a salary for twenty, thirty, or forty years surely can not pay for 50 per cent of a larger salary for life after age 40, 50, or 60. The average salary of Newark teachers, of both sexes, at the end of 1895, was a little less than \$791. The average salary of those who have taught twenty years is more than \$900. One per cent of \$791, for, say, thirty years, amounts, with compound interest at 5 per cent, to \$552, while, supposing the age of the teacher at appointment to have been 20, the value of an annuity of \$450 at age 50, using the same rate of interest, is \$5,547. Even if we suppose the teacher to have been active for forty years, 1 per cent of salary on the same basis would amount to \$1,003, as against \$1,381, the value of the annuity.

In the foregoing illustrations, however, there has not been taken into account the money left in the treasury, because of the many who resign or die before earning an annuity, and who take with them from the fund either nothing at all or one-half of what they have paid in. In the table given below an attempt has been made to illustrate the working of the scheme for the next twenty years in Newark, introducing all the elements of income and outgo. If any exaggeration has been indulged in, it has been in favor of the scheme rather than against it.

| 1             | 2               | 3         | 4                       | 5                         | 6                     | 7                           | 8                             |
|---------------|-----------------|-----------|-------------------------|---------------------------|-----------------------|-----------------------------|-------------------------------|
| During years— | No. of members. | Salaries. | 1 per cent of salaries. | Paid by retiring members. | Total paid into fund. | No. eligible for annuities. | No. retiring under annuities. |
| 1896-1897     | 523             | \$413,500 | \$4,135                 | \$900                     | \$5,035               | 106                         | 5                             |
| 1897-1898     | 540             | 426,500   | 4,265                   | 900                       | 10,200                | 104                         | 5                             |
| 1898-1899     | 559             | 440,500   | 4,405                   | 900                       | 15,505                | 104                         | 5                             |
| 1899-1900     | 578             | 455,500   | 4,555                   | 900                       | 20,960                | 105                         | 5                             |
| 1900-1901     | 599             | 471,500   | 4,715                   | 900                       | 26,575                | 106                         | 5                             |
| 1901-1902     | 620             | 488,500   | 4,885                   | .....                     | 31,460                | 108                         | 5                             |
| 1902-1903     | 643             | 506,500   | 5,065                   | .....                     | 36,525                | 111                         | 6                             |
| 1903-1904     | 666             | 525,500   | 5,255                   | .....                     | 41,780                | 113                         | 6                             |
| 1904-1905     | 691             | 545,500   | 5,455                   | .....                     | 47,235                | 116                         | 6                             |
| 1905-1906     | 716             | 567,000   | 5,670                   | .....                     | 52,905                | 120                         | 6                             |
| 1906-1907     | 743             | 588,000   | 5,880                   | .....                     | 58,785                | 125                         | 6                             |
| 1907-1908     | 770             | 608,000   | 6,080                   | .....                     | 64,865                | 129                         | 6                             |
| 1908-1909     | 798             | 629,000   | 6,290                   | .....                     | 71,155                | 134                         | 7                             |
| 1909-1910     | 827             | 651,000   | 6,510                   | .....                     | 77,665                | 137                         | 7                             |
| 1910-1911     | 857             | 674,000   | 6,740                   | .....                     | 84,405                | 141                         | 7                             |
| 1911-1912     | 887             | 698,500   | 6,985                   | .....                     | 91,390                | 145                         | 7                             |
| 1912-1913     | 919             | 724,000   | 7,240                   | .....                     | 98,630                | 150                         | 8                             |
| 1913-1914     | 951             | 750,500   | 7,505                   | .....                     | 106,135               | 154                         | 8                             |
| 1914-1915     | 985             | 778,000   | 7,780                   | .....                     | 113,915               | 159                         | 8                             |
| 1915-1916     | 1019            | 806,500   | 8,065                   | .....                     | 121,980               | 164                         | 8                             |

## 9

| During years— | Amounts paid annuitants—arranged according to year of retirement. |         |         |         |         |         |         |         |         |         |
|---------------|---|---------|---------|---------|---------|---------|---------|---------|---------|---------|
|               | 1896-97   | 1897-98 | 1898-99 | 99-1900 | 1900-01 | 1901-02 | 1902-03 | 1903-04 | 1904-05 | 1905-06 |
| 1896-1897     | \$2,250   |         |         |         |         |         |         |         |         |         |
| 1897-1898     | 1,800   | \$2,250 |         |         |         |         |         |         |         |         |
| 1898-1899     | 1,800   | 1,800   | \$2,250 |         |         |         |         |         |         |         |
| 1899-1900     | 1,350   | 1,800   | 1,800   | \$2,250 |         |         |         |         |         |         |
| 1900-1901     | 1,350   | 1,350   | 1,800   | 1,800   | \$2,250 |         |         |         |         |         |
| 1901-1902     | 900   | 1,350   | 1,350   | 1,800   | 1,800   | \$2,250 |         |         |         |         |
| 1902-1903     | 900   | 900     | 1,350   | 1,350   | 1,800   | 1,800   | \$2,700 |         |         |         |
| 1903-1904     | 450   | 900     | 900     | 1,350   | 1,350   | 1,800   | 2,250   | \$2,700 |         |         |
| 1904-1905     | 450   | 450     | 900     | 900     | 1,350   | 1,350   | 2,250   | 2,250   | \$2,700 |         |
| 1905-1906     |   | 450     | 450     | 900     | 900     | 1,350   | 1,800   | 2,250   | 2,250   | \$2,700 |
| 1906-1907     |   |         | 450     | 450     | 900     | 900     | 1,800   | 1,800   | 2,250   | 2,250   |
| 1907-1908     |   |         |         | 450     | 450     | 900     | 1,350   | 1,800   | 1,800   | 2,250   |
| 1908-1909     |   |         |         |         | 450     | 450     | 1,350   | 1,350   | 1,800   | 1,800   |
| 1909-1910     |   |         |         |         |         | 450     | 900     | 1,350   | 1,350   | 1,800   |
| 1910-1911     |   |         |         |         |         |         | 900     | 900     | 1,350   | 1,350   |
| 1911-1912     |   |         |         |         |         |         | 450     | 900     | 900     | 1,350   |
| 1912-1913     |   |         |         |         |         |         | 450     | 450     | 900     | 900     |
| 1913-1914     |   |         |         |         |         |         |         | 450     | 450     | 900     |
| 1914-1915     |   |         |         |         |         |         |         |         | 450     | 450     |
| 1915-1916     |   |         |         |         |         |         |         |         |         | 450     |

## 9

| During years— | Amounts paid annuitants—arranged according to year of retirement. |         |         |         |         |         |         |         |         |         |
|---------------|---|---------|---------|---------|---------|---------|---------|---------|---------|---------|
|               | 1906-07   | 1907-08 | 1908-09 | 1909-10 | 1910-11 | 1911-12 | 1912-13 | 1913-14 | 1914-15 | 1915-16 |
| 1896-1897     |   |         |         |         |         |         |         |         |         |         |
| 1897-1898     |   |         |         |         |         |         |         |         |         |         |
| 1898-1899     |   |         |         |         |         |         |         |         |         |         |
| 1899-1900     |   |         |         |         |         |         |         |         |         |         |
| 1900-1901     |   |         |         |         |         |         |         |         |         |         |
| 1901-1902     |   |         |         |         |         |         |         |         |         |         |
| 1902-1903     |   |         |         |         |         |         |         |         |         |         |
| 1903-1904     |   |         |         |         |         |         |         |         |         |         |
| 1904-1905     |   |         |         |         |         |         |         |         |         |         |
| 1905-1906     |   |         |         |         |         |         |         |         |         |         |
| 1906-1907     | \$2,700   |         |         |         |         |         |         |         |         |         |
| 1907-1908     | 2,250   | \$2,700 |         |         |         |         |         |         |         |         |
| 1908-1909     | 2,250   | 2,250   | \$3,150 |         |         |         |         |         |         |         |
| 1909-1910     | 1,800   | 2,250   | 2,700   | \$3,150 |         |         |         |         |         |         |
| 1910-1911     | 1,800   | 1,800   | 2,700   | 2,700   | \$3,150 |         |         |         |         |         |
| 1911-1912     | 1,350   | 1,800   | 2,250   | 2,700   | 2,700   | \$3,150 |         |         |         |         |
| 1912-1913     | 1,350   | 1,350   | 2,250   | 2,250   | 2,700   | 2,700   | \$3,600 |         |         |         |
| 1913-1914     | 900   | 1,350   | 1,800   | 2,250   | 2,250   | 2,700   | 3,150   | \$3,600 |         |         |
| 1914-1915     | 900   | 900     | 1,800   | 1,800   | 2,250   | 2,250   | 3,150   | 3,150   | \$3,600 |         |
| 1915-1916     | 450   | 900     | 1,350   | 1,800   | 1,800   | 2,250   | 2,700   | 3,150   | 3,150   | \$3,600 |



| During years—  | 10                                      | 11                              | 12                                     | 13                                    |
|----------------|---|---------------------------------|--|---------------------------------------|
|                | No. re-<br>signing<br>after 5<br>years. | Amounts<br>returned<br>to same. | Amounts<br>paid to<br>annu-<br>itants. | Total<br>amount<br>paid from<br>fund. |
| 1886-1897..... |   |                                 | \$2,250                                | \$2,250                               |
| 1897-1898..... |   |                                 | 4,650                                  | 6,300                                 |
| 1898-1899..... |   |                                 | 5,850                                  | 12,150                                |
| 1899-1900..... |   |                                 | 7,200                                  | 19,350                                |
| 1900-1901..... |   |                                 | 8,550                                  | 27,900                                |
| 1901-1902..... | 15                                      | \$281                           | 9,450                                  | 37,631                                |
| 1902-1903..... | 16                                      | 360                             | 10,800                                 | 48,791                                |
| 1903-1904..... | 17                                      | 446                             | 11,700                                 | 60,937                                |
| 1904-1905..... | 17                                      | 446                             | 12,600                                 | 73,983                                |
| 1905-1906..... | 18                                      | 473                             | 13,050                                 | 87,506                                |
| 1906-1907..... | 19                                      | 499                             | 13,500                                 | 101,595                               |
| 1907-1908..... | 19                                      | 499                             | 13,950                                 | 115,954                               |
| 1908-1909..... | 20                                      | 525                             | 14,850                                 | 131,329                               |
| 1909-1910..... | 21                                      | 551                             | 15,750                                 | 147,630                               |
| 1910-1911..... | 21                                      | 551                             | 16,650                                 | 164,831                               |
| 1911-1912..... | 22                                      | 578                             | 17,550                                 | 182,959                               |
| 1912-1913..... | 23                                      | 604                             | 18,900                                 | 202,463                               |
| 1913-1914..... | 24                                      | 630                             | 19,800                                 | 222,893                               |
| 1914-1915..... | 25                                      | 656                             | 20,700                                 | 244,249                               |
| 1915-1916..... | 25                                      | 656                             | 21,600                                 | 266,505                               |

It has been assumed in the table that all the teachers would join in the enterprise. If any do not join, they will naturally be the ones who would have to pay longest, and whose need of the annuity seems most remote, and not those who may expect to become incapacitated soonest.

Columns 2 and 3 represent the probable number of teachers and their salaries on the basis of the increase since 1886. Column 4 is the annual cost to the members, 1 per cent of their salaries. Column 5 represents 29 per cent of the annual salaries of those adjudged incapacitated during the first five years. Column 6 shows the total amount paid into the fund from the beginning.

Column 7 represents the number having taught twenty years or more and eligible for annuities, calculated from the reports of the city superintendent. They are 20 per cent of the entire number employed, less those who have commenced to draw annuities. Column 8 is an estimate of the number who would commence to draw annuities each year. It is supposed that one-twentieth, or 5 per cent, of those eligible for annuities would become incapacitated.

Columns 9 show the amounts drawn by annuitants, on the supposition that their average annual salaries during their last five years of teaching were \$900, and that one annuitant in each group dies every other year. Column 10 is the estimated number that would resign after teaching from five to nineteen years. Column 11 shows the amounts drawn out by those represented in column 10. It is supposed that the first group going out have paid into the fund for five years, the second group six years, and the rest seven years. The number of years is under rather than over estimated. Column 12 shows the amount paid out of the fund each year, and 13 the total amount paid out from the beginning.

A comparison of columns 6 and 13 shows that after the second year the disbursements exceed the receipts, and that before the end of the fifth year the fund is exhausted. After ten years the total receipts are almost \$35,000 less than the total disbursements, and are falling behind at the rate of \$7,000 per year. In twenty years the liabilities are \$144,000 greater than the assets, taking no account of interest on unpaid annuities, and the debt is growing larger at the rate of \$13,500 yearly.

In order to meet all obligations, it would be necessary to get from outside sources an annual sum of money gradually increasing and averaging \$7,000 a year for the twenty years. As the law applies to the whole State, it seems not improbable that there would soon develop an average annual deficit of at least \$20,000. It is said that fairs are to be held throughout the State and donations solicited in order to meet any deficiencies. It is, to say the least, extremely doubtful whether these large amounts can be raised annually in such uncertain ways.



It should be remembered that in this investigation all estimates are purposely made very favorable to the plan of the fund. For example, in the table it appears that 15 teachers will commence to draw annuities during the first three years, while the probabilities are that at least 30 would do so. As a matter of fact, \$40,000 a year, rather than \$26,000, would represent the annual deficit throughout the State if the only source of income were the 1 per cent of the teachers' salaries.

Surely the plan can not commend itself as being founded on sound business principles. More than half the income needed to meet obligations is provided for only by hopes. Possibly those who urged the passage of the bill before the legislature expect the State to go farther in the future, and make an annual appropriation as a pension fund. However this may be, the teachers of the State who go into the scheme should realize that they have no guarantee whatever that their annuities will be paid when due, or even that they can draw out half of their contributions if they resign after five years.

If the law provided that Newark and Jersey City and perhaps two or three others of the larger cities could have separate organizations, sufficient local pride and enthusiasm might be aroused to secure to the fund large amounts through donations and entertainments, but it will be hard to stir up so much interest when it is known that all extra money raised will go into the general State fund.

There is a flourishing Teachers' Annuity and Aid Association in Philadelphia. It was established December 20, 1890, and is therefore less than five and a half years old. It has 885 members enrolled, and although it did not commence to pay annuities until it was three years old, there are now seventy-two annuitants on its books. The fact that this association is strictly local has been one reason, no doubt, for the liberal donations it has received from the citizens of Philadelphia. But even with such large contributions from outside friends and with a State appropriation of \$20,000, the charge for membership is 2 per cent of all salaries up to and including \$1,000, and 1 per cent of higher salaries.

Nothing has been said in this article of the provision made by the law for the manner of deciding whether or not a teacher is incapacitated, although the method is open to criticism; neither has any substitute for the present plan been suggested. It might be said concerning the latter that at least 5 per cent of the teachers' salaries would be necessary to establish the fund on a sound financial basis.

Following are the comments of the editor of the Evening News, of Newark, N. J.:

#### THE TEACHERS' RETIREMENT LAW.

In another column of the News there appears an analysis of the probable income and expenditures of the proposed teachers' retirement fund as applied to this city. It is made up according to the figures and statistics by which an insurance or annuity company would calculate the results of attempting to do business on such a plan. It shows, what has been apparent from the start, that the fund raised under the law will not be self-sustaining; that it will be pitifully inadequate to meet the demands likely to be made upon it. In this city it must also be borne in mind that the conditions are more favorable than they would be in the State at large. The calculations give every advantage to the fund. There is no sentiment about the mathematics of insurance and annuities, but the formulæ and the methods which are employed in arriving at conclusions in regard to business of that kind have experience back of them, and reliance can be placed upon their results.

It is true that those who have been most active in securing legislation providing for this fund admit its inadequacy. They believe that by giving fairs and entertainments and enlisting the support of those who are interested in the public schools and the teachers large amounts of money can be raised. They hope for additional legislation and for State appropriations. The law was obviously intended as an

entering wedge for a system of pensioning of teachers. It was passed, however, after repeated attempts to secure the enactment of a teachers' pension law had failed, and one of the pleas made in its behalf by its advocates was that it would simply lend the aid of the State to an effort by the teachers to themselves provide for those among their number who might be forced to retire after years of faithful service. Is it likely that the State will come to the aid of the fund by making appropriations for pensions?

The question of the advantages to teachers and to the public offered by a teachers' pension fund it is needless to discuss. With here and there a rare and devoted exception, men and women who teach school follow that occupation because it is the best and most available means that they have to earn their livings. To pay higher salaries or to provide pensions would make positions in the public schools more desirable. The latter plan would enable educational authorities to retire superannuated teachers without feeling that the act was a cruel one, or would bring suffering to those who could no longer do their accustomed work.

To go that far, or, on the other hand, to say that teachers, like workers in other fields, ought to try by care and frugality to provide for their own old age, is to cover the grounds of the controversy over the question whether pensions should or should not be paid by the public to school teachers.

Apart from its failure to promise to be self-supporting, the scheme outlined by the law has two objections. One is that the law makes a teacher once a contributor always a contributor, as long as he or she remains in the public-school service. There is no way provided for those who have agreed to contribute to stop contributing, even though it should appear speedily that only those first retired had any prospect of getting annuities. The other point of unfairness is that in the event of a deficiency, the plan is not to divide the money proportionately among those entitled to receive it, but to pay the claims in full in order of priority, letting later applicants wait for their money. Both of these defects could be corrected by legislation; and teachers who think that they should be corrected, and who join in contributing to the fund, would do well to express their opinion. If those who start the movement unite in demanding changes obviously dictated by fairness and proper regard for others, the amendment of the law in those respects can no doubt be relied upon.

Teachers who believe that the State will aid this fund, or that private assistance will come in liberally, together with those who desire to assist their fellow-teachers, even if they do not themselves expect to derive any benefit, near or remote, will doubtless join the association. It may succeed in securing the help that will fairly put it on its feet and make it a strong reliance for teachers, an efficient ally of the public-school system, but those who join should do it with their eyes open to the crudity and insufficiency of the plan as it stands alone, and to the fact that it must be greatly supplemented if it is to succeed. It is fair to say that Miss Allen, the foremost champion of the law, dwelt with force upon this aspect of the case in the address which she delivered in this city last week.



## CHAPTER XXI.

### COEDUCATION—COMPULSORY ATTENDANCE—AMERICAN STUDENTS IN FOREIGN UNIVERSITIES—CONTINUATION AND INDUSTRIAL SCHOOLS.

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#### COEDUCATION.

*United States.*—The report of the Commissioner for 1891-92 presented a detailed statement as to the policy of coeducation, or the education of the two sexes in the same class, as practiced in the schools and colleges of the United States. To sum up briefly the facts as there presented, it appears that in the elementary or public schools of the United States boys and girls are educated together. The only exceptions to this rule are found in a few cities,<sup>1</sup> less apparently than 6 per cent of the total number. Even in these cities separation seldom takes place below the high school.

In the few cases in which boys and girls are instructed separately in the lower grades the system has generally resulted from the original plan or location of the building, and is regarded as a necessary evil. San Francisco affords the only notable example of a system of city schools in which the separate instruction of boys and girls is maintained and advocated as the wisest course.

Considering private schools, it appears that coeducation is the policy in nearly two-thirds the number and that these enroll a little more than two-thirds of all the pupils in private schools.

As to higher institutions—i. e., colleges and universities—65 per cent of the number reporting to the bureau are coeducational. Every year sees some addition to the number so classified. The latest reporting the admission of women to their privileges are Furman University, Greenville, S. C., which adopted the policy in 1893, and Beloit College, Beloit, Wis., 1895.<sup>2</sup>

*Great Britain.*—Coeducation is practiced in a large proportion of the elementary schools of England and Wales and Scotland, but the statistics do not enable us to determine the proportion of pupils in mixed schools. In the schools and classes for infants—i. e., children under 7

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<sup>1</sup> In the report for 1891-92, p. 788, it is stated that in the city of Denver, school district No. 1, boys and girls are educated in separate classes. This is an error arising from a mistake in the reply to the inquiry sent out from the office. Coeducation is the practice in all the Denver schools.

<sup>2</sup> Erskine College, Due West, S. C., announces that the trustees have authorized the admission of women, if they apply for the privilege.



years of age—there is no distinction of sex. As regards England, it appears that out of 22,848 departments for older pupils under separate head teachers 65 per cent are coeducational, and of the same for Scotland 97 per cent. The distribution between board and private schools was as follows in 1894-95:

## ENGLAND.

| Denominations.  | Number of departments in which separate head teachers are employed. |        |        |        |
|---|---|--------|--------|--------|
|   | Boys.   | Girls. | Mixed. | Total. |
| Schools connected with National Society, or Church of England.... | 1,908   | 1,723  | 9,442  | 13,073 |
| Wesleyan schools .....  | 34  | 28     | 468    | 530    |
| Roman Catholic schools .....                                      | 243   | 229    | 731    | 1,203  |
| British undenominational and other schools .....                  | 189   | 151    | 963    | 1,303  |
| School-board schools .....  | 1,778   | 1,706  | 3,255  | 6,739  |
| Total .....   | 4,152   | 3,837  | 14,859 | 22,848 |

## SCOTLAND.

|  |       |       |       |       |
|--|-------|-------|-------|-------|
| In public schools .....                            | 11    | 7     | 2,611 | 2,629 |
| In schools connected with Church of Scotland ..... | ..... | ..... | 44    | 44    |
| Free Church .....                                  | ..... | ..... | 14    | 14    |
| Episcopal Church .....                             | 4     | 2     | 68    | 74    |
| Roman Catholic Church .....                        | 26    | 24    | 142   | 192   |
| Undenominational and other schools .....           | 2     | 7     | 101   | 110   |
| Total .....  | 43    | 40    | 2,980 | 3,063 |

Statistics for Ireland show that 51 per cent of the national schools have a mixed attendance of boys and girls.

Secondary schools attended by both sexes generally have separate departments for each. It is noticeable that the royal commission on secondary education advocate the extension of the coeducation policy.<sup>1</sup> The university colleges established in England since 1868 are open to men and women. By the universities act of 1889 the Scotch universities were authorized to open their doors to women. Edinburgh admits them to the classes with men. Glasgow has affiliated Queen Margaret College for women, and more recently (1895) opened all lectures in the faculty of arts to women. The University College of Dundee, affiliated to St. Andrews, is coeducational.

In the British colonies, with very few exceptions, both mixed and separate schools are found. In Ontario all the schools are mixed; in Quebec the schools for English children are, as a rule, mixed, but in those for the French the sexes are separated. In the Australasian colonies the tendency to separate departments for boys and girls is noticeable in cities. In Cape Colony, while nearly all schools are mixed, separate schools for girls are encouraged.

*France.*—There is a slow but apparently steady increase in the number of mixed schools in France—that is, schools in which boys and girls are educated together. More significant still is the fact that this increase is taking place among private as well as among public schools. In the case of the public schools, the increase is confined to the secular schools,

<sup>1</sup> See p. 593.

but this is not the case with private schools. In the class of private secular schools, mixed schools have increased by 10.5 per cent, and in the class of parochial private schools, by 7.5 per cent since 1886-87. While the actual number of pupils in the mixed or coeducational public schools diminished in the decade 1886-87 to 1891-92, the relative proportion of the enrollment increased slightly—i. e., from 16.5 to 16.6 per cent. The enrollment in private coeducational schools has increased absolutely, but the ratio of enrollment in mixed private schools to the total private-school enrollment has declined slightly, i. e., by 0.4 per cent.

Custom and sentiment in France favor the separate education of boys and girls, and the law (1836, 1850, 1865, 1886) obliges every commune to maintain a separate school for girls unless authorized by the departmental council to substitute therefor a mixed school.

The number of communes having no special school for girls, either public or private, was a slightly smaller proportion of the total number of communes in 1891-92 than in 1886-87, the ratios being, respectively, 3.4 per cent and 3.7 per cent. Hence it would appear that the number of communes seeking to be relieved from the burden of a special school for girls does not increase, and that the increased enrollment in mixed schools is due to the rise of new communes having less than 500 inhabitants or to the growth of schools in which coeducation is a fixed policy. It is noticeable also that mixed schools are found chiefly in rural districts. Cities, as a rule, maintain separate schools for boys and girls; the entire department of the Seine, which is occupied by Paris and its environs, reported in 1891-92 for public schools only 0.2 per cent of the pupils enrolled in mixed schools, and for private schools 9.2 per cent.

In the department of secondary education, public and private establishments, separate education is the universal rule. As regards the universities, however, France has adopted a very liberal policy. The law has never prohibited the admission of women to the French faculties (universities), and since 1863 they have been practically open to women.

The number of women entering as matriculated students is necessarily small, since, apart from the absence of powerful incentives to severe effort, such as social honors, the certainty of lucrative careers, etc., it is difficult for women to secure the required preparation and its final sanction, the bachelor's degree or equivalent; nevertheless, a goodly number of women have successfully completed courses in the faculties of letters, of science, and of medicine, and received the degree of licencié, and, in a few instances, that of doctor.

Even the law faculty at Paris numbers women among its graduates. "From 1875-76 to 1887-88, inclusive, university degrees to the number of 262 were granted to women. These included 39 in medicine, 130 in the sciences, 89 in classics and belles-lettres, 1 in pharmacy, and 3 in

law. Of the whole number, 137 were obtained in Paris and the remainder in the provinces; 207 were conferred upon French women."

In the capacity of hearers or unmatriculated students a large number of women are found in attendance upon certain faculty courses at Paris and other academic centers.

*Germany.*—Separate education is the preferred policy in the German States, but coeducation is the rule in the primary schools of cities and in the country schools.<sup>1</sup> In Saxony, only the two lowest classes are mixed, so that separation occurs generally at the tenth year of age, always by the twelfth.

*Other continental countries.*—Similar conditions prevail in the remaining countries of Europe, the tendency toward separation being most strongly marked in the Catholic countries. In Italy, the law calls for separate schools for boys and girls, and if they attend at the same building, it must be in separate departments, each provided with its own entrance door. The lowest classes, however, may be, and often are, mixed.

In Norway, and to a less extent in Denmark, girls are securing admission to secondary schools formerly reserved for boys.<sup>2</sup>

The South American Republics follow the precedent of the Latin States of Europe. Brazil, like Italy, requires separate schools for the two sexes. In 1888 the experiment of admitting boys and girls to the same class rooms was made in a few schools, but they were seated in different rooms outside of recitation hours.

The admission of women to university privileges characterizes the recent history of higher education in Europe. The status of women in this respect in France and Great Britain has already been noted; additional countries in which women are admitted to the same university courses as men are Switzerland, Italy, Belgium, Holland, Denmark, Norway, Sweden. Except in Switzerland, comparatively few women avail themselves of these privileges. Recent movements looking to the extension of similar privileges in German universities, also in Austria, Hungary, and Greece, are treated in extenso in another chapter of this report.<sup>3</sup>

#### COMPULSORY SCHOOL ATTENDANCE.

The report of the Commissioner for 1888-89 presented a chapter on the compulsory attendance laws in the United States,<sup>4</sup> which was brought "as far as practicable" to March, 1891. At that time 27 States and Territories of the Union had compulsory attendance laws in operation. The important changes that have taken place in respect to this matter since that report was prepared are a new compulsory education law for New York, enacted May 12, 1894, and a compulsory law for Pennsylvania, the first in its history, bearing date May 16, 1895.

<sup>1</sup> See statement by Dr. E. Schlee in Report of Commissioner for 1891-92, vol. 2, p. 799.

<sup>2</sup> See address by P. Voss in Report of Commissioner for 1888-89, vol. 1, p. 464.

<sup>3</sup> See pp. 921-936.

<sup>4</sup> See vol. 1, pp. 470-531.



Comparison of the new law for New York with the previous law of 1894 shows the following important changes:

The age of required instruction, formerly 8 to 14, is extended two years (8 to 16). Under the former law the required annual term of school attendance was fourteen weeks, eight of which were to be consecutive. Under the present law, every child between 14 and 16 years of age, and "in proper physical and mental condition to attend school," and who is "not regularly and lawfully engaged in any useful employment or service," and every such child "between 8 and 12 years of age shall attend upon instruction as many days annually, during the period between the first days of October and the following June, as the public school of the district or city in which such child resides shall be in session during the same period."

Every such child between 12 and 14 years of age "shall attend upon instruction during such period at least eighty secular days of actual attendance, which shall be consecutive, except for holidays, vacations, and detentions by sickness, which holidays, vacations, and detentions shall not be counted as a part of such eighty days, and such child shall, in addition to the said eighty days, attend upon instruction when not regularly and lawfully engaged in useful employment or service." The penalties for violation of the law are increased. In place of a fine of \$1 for the first offense and for each succeeding offense, a fine of \$5 for each week not exceeding a total of thirteen weeks, the present law exacts a maximum fine of \$5 for the first offense, and for each subsequent offense a fine not exceeding \$50 or imprisonment not exceeding thirty days. The penalty for employing a child in violation of the law is the same as under the former law, but the employment of "any child between the ages of 8 and 12 years in any business or service whatever, during any part of the term during which the public schools of the district in which the child resides are in session," is strictly forbidden. Special officers are designated for the enforcement of the law and special schools provided for "the confinement, maintenance, and instruction of truant children." Moreover, the State superintendent may withhold from any city or district which, in his judgment, "willfully omits and refuses to enforce the provisions of this act," one-half of all public school money. Thus the law starting with parental obligations recognizes in the end that the welfare of the child is a common responsibility.

The indifference in the matter or absolute opposition to compulsory legislation which formerly prevailed among us is evidently passing away. On this point the Commissioner's report already quoted says:

The principle of compulsory education is steadily gaining ground. Steps in advance are being taken here and there all along the line. Since 1886 no less than 16 (now 17) States and Territories have either enacted laws for the first time or have made their former laws more stringent. The arguments and discussions of thirty years or more have been gradually silencing opposition, and public sentiment is slowly crystallizing in the direction of requiring by law all parents to provide a certain minimum of school instruction for their children. This tendency is unmistakable.



The most convincing proof of the correctness of this opinion is found in the recent legislation in Pennsylvania. The law of May 16, 1895, requires that—

Every parent, guardian, or other person in this Commonwealth having control or charge of a child or children between the ages of 8 and 13 years shall send such child or children to a school in which the common English branches are taught, and that such child or children shall attend such school during at least sixteen weeks of each year in which schools in their respective districts shall be in session, unless excused from such attendance by the board of the school district in which the parent, guardian, or other person resides, upon the presentation to said board of satisfactory evidence showing such child or children are prevented from attendance at school, or application to study, by mental or physical or other urgent reasons: *Provided*, That in case there be no public school in session within two miles of the nearest traveled road of any person within the school district, he or she shall not be liable to the provisions of this act: *Provided*, That this act shall not apply to any child that has been or is being otherwise instructed in the common English branches of learning for a like period of time: *And provided further*, That the certificate of any principal of any school or educational institution, or of any teacher, that any child has been or is being so instructed, issued to such child or its parents or guardians shall be sufficient and satisfactory evidence thereof.

For every neglect of duty imposed by the foregoing section of this act, "the person in parental relation offending shall be guilty of a misdemeanor, and shall, upon conviction thereof before a justice of the peace or alderman, forfeit a fine not exceeding \$2 on the first conviction, and a fine not exceeding \$5 for each subsequent conviction." The defendant has, however, privilege of appeal to the courts. The act authorizes boards of school directors or school controllers in cities, boroughs, or townships to employ attendance officers, "whose duty it shall be to look after, apprehend, and place in such schools as the person in parental relation may designate, truants and others who fail to attend school in accordance with the provisions of this act."

Provision is made for an annual census of the children of school age (8 to 13 years), and teachers are required to—

report immediately to the secretary of the board of directors or controllers, and thereafter, at the close of each school month, the names of all children on the list previously furnished by the secretary, who were absent without satisfactory cause for five days during the month for which the report shall be made, when, if it shall appear that any parent, guardian, or other person having control of any child or children shall have failed to comply with the provisions of this act, after due notification in writing, as provided in section 2, the secretary, or attendance officer, if there be one, in the name of the school district, shall proceed against the offending party or parties in accordance with law by complaint before any alderman or justice of the peace.

Moreover, the secretary, or attendance officer, if there be one, of any board of directors or controllers, who fails to comply with the provisions of the act, is to be judged "guilty of a misdemeanor, and upon conviction thereof before an alderman or justice of the peace shall forfeit a fine not exceeding \$25."

In his report for 1895, the State superintendent, Hon. Nathan C. Schaeffer, says, with reference to this measure:

But the most far-reaching of all the recent laws is the act making education compulsory. Under this act children between the ages of 8 and 13 are required to attend

school at least sixteen weeks each year. The moral effect of this legislation has been salutary in causing some pupils to attend who would otherwise have absented themselves. The full effect of the law can not be seen so long as the school census has not been taken. In accordance with the opinion of the attorney-general this census is first to be taken in connection with the spring assessment of 1896.

The following table gives the salient particulars of the compulsory laws in twenty-eight States and Territories of the Union, together with the date of the law now in force, and in a few cases the date of subsequent amendments. To this is appended a tabular statement of the conditions of compulsory school attendance in foreign countries, as given in the report of the royal commission appointed to inquire into the working of the elementary education acts, England and Wales, 1888, Foreign Returns.

*Compulsory education requirements in the United States.*

| States.                 | Date of present law. | Ages.    | Annual period.   | Penalty.  |
|-------------------------|----------------------|----------|--|---|
| Maine .....             | 1887                 | 8-15...  | 16 weeks.....  | Fine, \$25 (maximum).   |
| New Hampshire.....      | 1886                 | 6-16...  | 12 weeks.....  | Each offense, \$10 (maximum).   |
| Vermont.....            | 1888                 | 8-14...  | 20 weeks.....  | Fine, \$10 to \$50.   |
| Massachusetts.....      | { 1873<br>a 1889 }   | 8-14...  | { 2 terms; 10 consecutive weeks each.  | { Each offense, forfeit of \$20.  |
| Rhode Island.....       | 1887                 | 7-15...  | 12 weeks; 6 consecutive.   | Each offense, fine \$20 (maximum).  |
| Connecticut.....        | 1872                 | 8-16...  | 8-13 years of age, 24 weeks; 13-14, 12 weeks.  | For each week's neglect, fine, \$5 (maximum).   |
| New York.....           | 1894                 | 8-16...  | 8-12 years of age and unemployed youths, 14-16, full term; 12-14, 80 consecutive days. | First offense, fine, \$5 (maximum); each subsequent offense, \$50 (maximum), or imprisonment 30 days. |
| New Jersey.....         | 1885                 | 7-12...  | 20 weeks; 8 consecutive.   | Each offense, \$10 to \$25, or imprisonment 1 to 3 months.  |
| Pennsylvania.....       | 1895                 | 8-13...  | 16 weeks.....  | First offense, \$2 (maximum); each subsequent offense, \$5 (maximum).                                 |
| District of Columbia b. | 1864                 | 6-14...  | 12 weeks; 6 consecutive.   | Fine, \$20 (maximum).   |
| Ohio.....               | { 1889<br>a 1890 }   | 8-14...  | { 20 weeks, city districts; 16 weeks, village and township districts.                  | { Fine, \$5 to \$20.  |
| Illinois.....           | 1889                 | 7-14...  | 16 weeks; 8 consecutive.   | Fine, \$1 to \$20.  |
| Michigan.....           | { 1883<br>a 1885 }   | 8-14...  | 16 weeks; 6 consecutive.   | { First offense, \$5 to \$10; each subsequent offense, \$10 (minimum).                                |
| Wisconsin.....          | 1891                 | 7-14...  | 12 weeks.....  | Fine, \$3 to \$20.  |
| Minnesota.....          | 1885                 | 8-16...  | 12 weeks; 6 consecutive.   | First offense, \$10 to \$20; each subsequent offense, \$25 to \$50.                                   |
| Dakota c.....           | { 1883<br>a 1887 }   | 10-14... | do.....  | Fine, \$10 to \$25.   |
| Nebraska.....           | 1887                 | 8-14...  | 12 weeks.....  | Each offense, \$10 to \$50.   |
| Kansas.....             | 1874                 | 8-14...  | 12 weeks; 6 consecutive.   | First offense, fine, \$5 to \$10; each subsequent offense, \$10 to \$20.                              |
| Montana b.....          | 1883                 | 8-14...  | do.....  | Each offense, \$5 to \$20, or 30 days imprisonment.   |
| Wyoming.....            | 1887                 | 7-16...  | 12 weeks.....  | Each offense, \$25 (maximum).   |
| Colorado.....           | 1889                 | 8-14...  | 12 weeks; 8 consecutive.   | Each offense, \$5 to \$25.  |
| New Mexico.....         | 1891                 | 8-16...  | 12 weeks.....  | Fine, \$1 to \$25, or imprisonment for not more than 10 days.   |
| Utah.....               | 1890                 | 10-14... | 16 weeks; 10 consecutive.  | First offense, \$10 (maximum); each subsequent offense, \$30.   |
| Nevada.....             | 1873                 | 8-14...  | 16 weeks; 8 consecutive.   | First offense, \$50 to \$100; subsequent offense, \$100 to \$200.                                     |
| Idaho.....              | 1887                 | 8-14...  | 12 weeks; 8 consecutive.   | First offense, \$5 to \$20; subsequent offenses, \$10 to \$50.  |
| Washington.....         | 1890                 | 8-15...  | 12 weeks.....  | Fine, \$10 to \$25.   |
| Oregon.....             | 1889                 | 8-14...  | 12 weeks; 8 consecutive.   | First offense, \$5 to \$25; each subsequent offense, \$25 to \$50.                                    |
| California b.....       | 1874                 | 8-14...  | Two-thirds of school term; 12 weeks consecutive.                                       | Each offense, \$20 to \$50.   |

a Date of amendment.

b Law a dead letter.

c Territorial law.

*Compulsory education requirements in certain foreign countries.*

| Countries.             | Date of present law. | Ages.   | Attendances required.   | Penalty.   |
|------------------------|----------------------|---|---|--|
| Austria.....           | 1869                 | 6-14.....   | Until scholar has acquired prescribed subjects, religion and reading, writing and arithmetic. | Fine, \$3.50 (maximum) or imprisonment up to 2 days.   |
| Bavaria.....           |                      | 6-13 (13-16 in Sunday schools.)   | .....   | Fine, \$11 (maximum) or 8 days' imprisonment.  |
| Belgium.....           |                      |   | No compulsory law.....  |  |
| France.....            | 1887                 | 6-13.....   | For 4 absences of half a day in a month the parent is summoned before local school committee. | First and second offenses, warning; subsequent, fine, \$3 (maximum) and imprisonment 5 days. |
| England.....           | 1880                 | 5-13.....   | Full school term unless by special arrangement.   | Determined by local by-laws.   |
| Scotland.....          | 1872                 | 5-13.....   | do.....   | Fine, \$5 or imprisonment 14 days.   |
| Holland.....           |                      |   | No compulsory law.....  |  |
| Hungary.....           | 1868                 | 6-12; 12-15, continuation.  | 8 months country, 10 months town.   | Fine from 35 cents to \$1.50.  |
| Italy.....             | 1877                 | 6-9.....  | No fixed rule.....  | Each offense, 10 cents to \$2.   |
| Norway.....            | { 1848<br>1860 }     | { 8 (7 in town) until they are confirmed. }   | 12 weeks per annum.....   | Fines.   |
| Prussia.....           |                      | 4-14.....   | 8 years.....  | Each offense 70 cents (maximum), or imprisonment up to 3 days.                               |
| Saxony.....            | a 1835               | 7-15 (special dispensation after 7 years' attendance and 1 year's prolongation for ignorance. | .....   | Fine, \$1.50 to \$7, or imprisonment from 1 day to 6 weeks.                                  |
| Sweden.....            | 1882                 | 7-14.....   | 34½ weeks.....  |  |
| Berne.....             | 1870                 | 6-15.....   | Five-sixths of possible attendances.  | Fines and imprisonment.  |
| Geneva.....            | 1886                 | 6-15.....   | Four days a week; 6 hours a day.  | Do.  |
| Neuchâtel.....         | 1872                 | 7-16.....   | After 13 years of age, 10 hours a week.   | Fine, 38 cents (minimum), or imprisonment 30 days (maximum.)                                 |
| Tessin (Switzerland).  | 1882                 | 6-14.....   | 28 hours a week for 6 to 9 months.  | Each offense, 2 to 3 cents and 4 hours' imprisonment.  |
| Vaud (Switzerland).    | 1865                 | 7-16.....   | 33 hours a week.....  |  |
| Grisons (Switzerland). | { 1853<br>1859 }     | 7-15.....   | .....   | Fines or imprisonment.   |
| Zurich.....            | 1859                 | 6-16.....   | Every day; penalties for 10 absences.   | Warnings; subsequently fines, 60 cents to \$3.   |
| Wurtemberg.....        | { 1836<br>1877 }     | 7-14.....   | Every school day.....   | Fine or imprisonment.  |
| British Columbia       | 1885                 | 7-12.....   | .....   | Do.  |
| Cape Colony.....       | 1865                 | .....   | No compulsory law.....  |  |
| New Zealand.....       | 1877                 | 7-13.....   | One-half the period during which the school is open.  | Fine, \$10 (maximum).  |
| Nova Scotia.....       | 1864                 | 7-12.....   | 80 days a year.....   | Fine, \$2.   |
| Ontario.....           | { 1885<br>1887 }     | 7-13.....   | 100 days a year.....  | \$1 per month for each of the children not attending a school.                               |
| Prince Edward Island.  | 1877                 | 8-13.....   | 13 weeks a year.....  | Fine.  |
| Quebec.....            |                      |   | No compulsory law.....  |  |
| Queensland.....        | 1875                 | 6-12.....   | 60 days in each half year b.....  | Fine, \$5 to \$25, or imprisonment 7 to 30 days.   |
| South Australia.....   | { 1875<br>1878 }     | 7-13.....   | 35 school days per quarter....  | Fine, \$1.25 to \$5.   |
| Tasmania.....          | { 1885<br>1886 }     | 7-13.....   | 3 days a week.....  |  |

a Education compulsory since 1769.

b Compulsion not yet enforced.

## AMERICAN STUDENTS IN FOREIGN UNIVERSITIES.

Americans intending to pursue a course of higher education in Europe chiefly attend German and Swiss universities. Comparatively few attend French and English institutions of learning, but for art studies they naturally prefer the French schools to the German, while for technical branches the German and English schools are preferred. Admission to German universities being dependent upon a course of preparation in a German classical secondary school (so-called gymnasia), Americans are rarely matriculated as regular students, but as hearers who have all the privileges of regular students, except that they are barred from state examinations which open the way to the learned professions in Germany. The French authorities propose to draw the current of American students to France.<sup>1</sup> In Paris a committee of the Sorbonne are active in calling the attention of Americans to the advantages offered in France. They particularly dwell on the fact that admission to schools of learning in France for foreigners is facilitated. Lately a committee has been organized in Washington working to the same end. However, several journals in the United States advocate the continuance of the practice in vogue, urging that the German language is acquired more easily, hence that an American can more easily familiarize himself with the working of a German university, and, furthermore, that the German university is a complete institution, while a French provincial university is rarely composed of more than one or two faculties. The following figures may be of interest:

*American students in German universities.*

| Year.      | Theology. | Law. | Medicine. | Philosophy. | Total. |
|------------|-----------|------|-----------|-------------|--------|
| 1891 ..... | 47        | 13   | 133       | 253         | 446    |
| 1892 ..... | 27        | 12   | 112       | 232         | 383    |
| 1894 ..... |           |      |           |             | 514    |

Further information is found on page 340 of Annual Report for 1891-92.

## CONTINUATION AND INDUSTRIAL SCHOOLS.

In Germany, it is well understood that an elementary education, such as the common school offers, barely suffices to prepare for the duties of life the children of the poorer strata of society. The time between the fourteenth and, say, eighteenth years of life is a period during which the children are apt to forget what they learned in school, not having immediate application of their knowledge in daily pursuits. The various state and communal governments of Germany, Austria, Switzerland, and some other States in Europe having recognized the necessity of bridging over that period, established what is known as "continuation

<sup>1</sup> For detailed account of this movement see pp. 305 et seq.



of supplementary schools." These schools are either day, evening, or Sunday schools. In most cases they offer reviews of elementary branches, and in addition to these a number of generally useful branches of practical knowledge, such as drawing and manual labor. When they offer this manual instruction, which is also called instruction in trades sometimes, these schools are classed among the industrial schools. If they have no such addition, and confine themselves to the common school branches, they are called continuation schools only.

In industrial centers, such as Saxony, Thuringia, and Rhenish Prussia, as well as in large cities with extensive industries, these continuation schools are most generally industrial schools also, and are specially designed to give opportunities to apprentices in workshops and factories to prepare themselves better for their pursuits than they could otherwise, and the parental governments in central Europe are very much concerned about apprentices and the thorough preparation of skilled labor. They even prescribe for the boys a compulsory attendance in these evening or Sunday schools. The State law gives communities the right to insist upon a compulsory attendance where ample provision is made, and where the State gives a subsidy for the maintenance of such schools. It is the rule, generally accepted in all German-speaking nations, that the community establishes the school—that is to say, furnishes the house and equipments, light and fuel, as well as furniture and tools, and the State pays the salary of the teacher. Thus communities and government join hands in maintaining a vast system of supplementary schools chiefly designed to prevent the deterioration of the elementary common school work, and secondly to facilitate and aid industries in the city and in the country, for these schools are not industrial schools only but also agricultural, many of them being situated in agricultural districts.

Now, it must not be understood that any of the supplementary or continuation schools and industrial and agricultural schools, as they are called, are anything more than elementary. The real and actual trade schools are of a higher order. These latter schools presuppose a thorough common school education, and build upon that by introducing higher arithmetic, business methods, a great deal of industrial drawing, and the elements of certain trades. These trades are not chosen by the State authority, but they are invariably the choice of authorities of the community or of certain societies, the aim of which is to encourage trade and industry. Many of such schools are therefore established by trades union. Afterwards they were adopted, as it were, by the city or communal government, and as such came under the State law which provides for the State aid or subsidies.

Though these schools are primarily established and maintained for boys, it must be stated that during the last twenty years the fact that women are employed in various industries in factory and shop work makes it necessary to extend the benefits of continuation and indus-

trial schools to girls also. But the Germans recognize the fact that woman's skill lies in different directions from that of man's skill, and they therefore aim to meet the several necessities of woman's skill in school work by carefully discriminating between shopwork for boys and for girls. In the models used in drawing, for instance, it is plainly seen that a thoughtful discrimination is made. The same is done with reference to the work in arithmetic and in commercial branches.

In some portions of the Empire the continuation schools are very old, having begun shortly after the general revival following in the wake of the dethronement of Napoleon I. In other parts of the Empire, as well as in Austria and Switzerland, and notably in the agricultural districts, the continuation schools are of more recent origin. Their attendance is not at all uniformly regular, owing to the fact that attendance is not everywhere compulsory, and owing also to the fact that the skill and popularity of the teacher has much to do with the attendance at a school for boys and girls in the critical age between 14 and 18. It is well understood that this period is a time of storm and stress, and subjugation under strict rules and discipline in that age is more difficult with children of the lower strata of society than it is found in higher schools and colleges, where a higher culture and a more refined atmosphere aids the discipline and the general habitus of the students. In paragraph 3 of chapter on "Education in Central Europe," in this annual report, an extensive article on the subject of supplementary schools is found. It contains some statistics which show the extent of the system.



# CHAPTER XXII.

## EDUCATIONAL DIRECTORY.<sup>1</sup>

### I.—CHIEF STATE SCHOOL OFFICERS.

| Name.                    | Address.                  | Official designation.                       |
|--------------------------|---------------------------|---|
| John O. Turner.....      | Montgomery, Ala.....      | State superintendent of education.          |
| Sheldon Jackson.....     | Sitka, Alaska.....        | General agent of education.                 |
| F. J. Netherton.....     | Phoenix, Ariz.....        | Superintendent of public instruction.       |
| Junius Jordan.....       | Little Rock, Ark.....     | State superintendent of public instruction. |
| Samuel T. Black.....     | Sacramento, Cal.....      | Do.   |
| Mrs. A. J. Peavey.....   | Denver, Colo.....         | Do.   |
| C. D. Hine.....          | Hartford, Conn.....       | Secretary of State board of education.      |
| W. B. Powell.....        | Dover, Del.....           | Do.   |
| W. N. Sheats.....        | Washington, D. C.....     | Superintendent of District schools.         |
| Gustavus R. Glenn.....   | Tallahassee, Fla.....     | State superintendent of public instruction. |
| C. A. Forseman.....      | Atlanta, Ga.....          | State school commissioner.                  |
| Samuel M. Inglis.....    | Boise, Idaho.....         | State superintendent of public instruction. |
| D. M. Geeting.....       | Springfield, Ill.....     | Do.   |
| Henry Sabin.....         | Indianapolis, Ind.....    | Do.   |
| Edmund Stanley.....      | Des Moines, Iowa.....     | Do.   |
| W. J. Davidson.....      | Topeka, Kans.....         | Do.   |
| J. V. Calhoun.....       | Frankfort, Ky.....        | Do.   |
| W. W. Stetson.....       | Baton Rouge, La.....      | State superintendent of education.          |
| E. B. Prettyman.....     | Augusta, Me.....          | State superintendent of common schools.     |
| Frank A. Hill.....       | Baltimore, Md.....        | Secretary of State board of education.      |
| Henry R. Pattengill..... | Boston, Mass.....         | Do.   |
| W. W. Pendergast.....    | Lausing, Mich.....        | State superintendent of public instruction. |
| A. A. Kincannon.....     | St. Paul, Minn.....       | Do.   |
| John R. Kirk.....        | Jackson, Miss.....        | State superintendent of education.          |
| E. A. Steere.....        | Jefferson City, Mo.....   | State superintendent of public schools.     |
| H. R. Corbett.....       | Helena, Mont.....         | State superintendent of public instruction. |
| H. C. Cutting.....       | Lincoln, Nebr.....        | Do.   |
| Fred. Gowing.....        | Carson City, Nev.....     | Do.   |
| Chas. J. Baxter.....     | Concord, N. H.....        | Do.   |
| Amado Chaves.....        | Trenton, N. J.....        | Do.   |
| Charles E. Skinner.....  | Santa Fe, N. Mex.....     | Superintendent of public instruction.       |
| John C. Scarborough..... | Albany, N. Y.....         | State superintendent of public instruction. |
| Miss Emma F. Bates.....  | Raleigh, N. C.....        | Do.   |
| Oscar T. Corson.....     | Bismarck, N. Dak.....     | Do.   |
| E. D. Cameron.....       | Columbus, Ohio.....       | State commissioner of common schools.       |
| G. M. Irwin.....         | Guthrie, Okla.....        | Superintendent of public instruction.       |
| Nathan C. Schaeffer..... | Salem, Oreg.....          | State superintendent of public instruction. |
| Thomas B. Stockwell..... | Harrisburg, Pa.....       | Do.   |
| W. D. Mayfield.....      | Providence, R. I.....     | Commissioner of public schools.             |
| Frank Crane.....         | Columbia, S. C.....       | State superintendent of education.          |
| S. G. Gilbreath.....     | Pierre, S. Dak.....       | State superintendent of public instruction. |
| J. M. Carlisle.....      | Nashville, Tenn.....      | State superintendent of public schools.     |
| John R. Park.....        | Austin, Tex.....          | State superintendent of public instruction. |
| Mason S. Stone.....      | Salt Lake City, Utah..... | Do.   |
| John E. Massey.....      | Montpelier, Vt.....       | State superintendent of education.          |
| C. W. Bean.....          | Richmond, Va.....         | State superintendent of public instruction. |
| Virgil A. Lewis.....     | Olympia, Wash.....        | Do.   |
| J. Q. Emery.....         | Charleston, W. Va.....    | State superintendent of free schools.       |
| Miss Estelle Reel.....   | Madison, Wis.....         | State superintendent of public schools.     |
|                          | Cheyenne, Wyo.....        | State superintendent of public instruction. |

<sup>1</sup> Including all changes reported to the Bureau up to August, 1896.

### II.—LIST OF CITY SUPERINTENDENTS.

#### ALABAMA.

|                               |                              |
|-------------------------------|------------------------------|
| Anniston, H. C. Gunnels.      | Mobile, John D. Yerby.       |
| Bessemer, G. M. Lovejoy.      | Montgomery, C. L. Floyd.     |
| Birmingham, J. H. Phillips.   | New Decatur, R. R. Harris.   |
| Eufaula, F. L. McCoy.         | Opelika, T. C. Pinkard.      |
| Florence, H. C. Gilbert.      | Selma, R. E. Hardaway.       |
| Huntsville, Sydney J. Mayhew. | Tuscaloosa, James H. Foster. |



## ARIZONA.

Tucson, ————.

## ARKANSAS.

Fort Smith, J. L. Holloway.  
 Helena, W. W. Rivers.  
 Hot Springs, G. B. Cook.

Little Rock, J. R. Rightsell.  
 Pine Bluff, J. H. Hincmon.

## CALIFORNIA.

Alameda, D. J. Sullivan.  
 Berkeley, S. D. Waterman.  
 Eureka, G. W. Warren.  
 Fresno, T. L. Heaton.  
 Los Angeles, J. A. Forshay.  
 Napa City, J. L. Shearer.<sup>1</sup>  
 Oakland, J. W. McClymonds.  
 Pasadena, James D. Graham.  
 Pomona, F. A. Molyneux.  
 Riverside, Eugene Fuller.<sup>1</sup>  
 Sacramento, O. W. Erlewine.

San Bernardino, T. H. Kirk.  
 San Diego, Ellwood P. Cubberley.  
 San Francisco, Madison Babcock.  
 San Jose, F. P. Russell.  
 Santa Ana, F. E. Perham.  
 Santa Barbara, C. Y. Roop.  
 Santa Cruz, D. C. Clark.  
 Santa Rosa, Frederick L. Burk.  
 Stockton, James A. Barr.  
 Vallejo, Charles A. Fulton.

## COLORADO.

Aspen, F. H. Clark.  
 Colorado Springs, ————.  
 Cripple Creek, ————.  
 Denver: District No. 1, Aaron Gove.  
           District No. 2, L. C. Greenlee.

Denver: District No. 17, J. H. Van Sickle.  
 Leadville, J. P. Jackson.  
 Pueblo: District No. 1, James S. McClung.  
           District No. 20, H. E. Robbins.  
 Trinidad, Eugene C. Stevens.

## CONNECTICUT.

Ansonia, W. H. Angleton.  
 Branford, C. H. Harriman.<sup>1</sup>  
 Bridgeport, Charles W. Deane.  
 Bristol, James F. Williams.  
 Danbury, A. C. Hubbard.<sup>2</sup>  
 Derby, J. W. Peck.  
 East Hartford, Joseph O. Goodwin.<sup>3</sup>  
 Enfield, James B. Houston.<sup>3</sup>  
 Greenwich, George P. Fisher.  
 Hartford, Andrew F. Gates.  
 Manchester, Robert P. Bissell.  
 Meriden, J. T. Pettee.  
 Middletown, Walter B. Ferguson.  
 Milford, H. I. Matthewson.  
 Naugatuck, J. H. Carfrey.

New Britain, G. A. Stuart.  
 New Haven, Calvin N. Kendall.  
 New London, Charles B. Jennings.<sup>4</sup>  
 New Milford, Albert Evitts.  
 Norwalk, Charles Olmstead.<sup>2</sup>  
 Norwich, N. L. Bishop.  
 Rockville, I. M. Agard.  
 Stamford, Everett C. Willard.  
 Torrington, Edwin H. Forbes.  
 Wallingford, Daniel R. Knight.  
 Waterbury, M. S. Crosby.  
 West Haven, A. M. Drummond.  
 Westport, L. T. Day.<sup>2</sup>  
 Willimantic, George L. Storrs.  
 Winsted, George F. Prentiss.<sup>2</sup>

## DELAWARE.

Newcastle, George W. Andrew.

Wilmington, David W. Harlan.

## DISTRICT OF COLUMBIA.

Washington, William B. Powell, superintendent of public schools.

Washington, G. F. T. Cook, superintendent of colored schools.

## FLORIDA.

Jacksonville, Joel D. Mead.<sup>5</sup>  
 Key West, C. F. Kemp.<sup>5</sup>  
 Pensacola, N. B. Cook.<sup>5</sup>

St. Augustine, Walter E. Knibloe.  
 Tampa, L. W. Buchholz.<sup>5</sup>

## GEORGIA.

Albany, E. G. Jones.  
 Americus, William Harper.  
 Athens, G. G. Bond.  
 Atlanta, W. F. Slaton.  
 Augusta, Lawton B. Evans.  
 Brunswick, A. L. Franklin.

Columbus, Homer Wright.  
 Griffin, J. Henry Walker.  
 Macon, D. Q. Abbott.  
 Rome, James C. Harris.  
 Savannah, W. H. Baker.  
 Thomasville, K. T. MacLean.<sup>5</sup>

## ILLINOIS.

Alton, Robert A. Haight.  
 Aurora: District No. 5 (East Side), J. H. Freeman.  
           District No. 4 (West Side), A. V. Green-  
           man.  
 Austin, Newell D. Gilbert.  
 Beardstown, M. Moore.  
 Belleville, H. D. Updike.  
 Belvidere, H. A. Warren;<sup>1</sup> C. H. Dye.<sup>1</sup>  
 Bloomington, E. M. Van Petten.  
 Braidwood, C. F. Van Doren.

Cairo, Taylor C. Clendenen.  
 Canton, C. M. Bardwell.  
 Centralia, Irwin F. Mather.  
 Champaign, C. A. Bowsher.  
 Charleston, W. T. Gooden.  
 Chicago, Albert G. Lane.  
 Danville, Joseph Carter.  
 Decatur, Enoch A. Gastman.  
 Dixon, William Jenkins.  
 Duquoin, David B. Rawlins.

<sup>1</sup>Principal.<sup>2</sup>Secretary of the board of school visitors.<sup>3</sup>Secretary of the board of school visitors: post-office, Thompsonville.<sup>4</sup>Acting school visitor.<sup>5</sup>County superintendent.

## ILLINOIS—Continued.

East St. Louis: District No. 1, James P. Slade.  
 District No. 2, range 10, T. J. McDonough.<sup>1</sup>  
 District No. 2, range 9, I. Harry Todd.<sup>1</sup>  
 Elgin, Eugene A. Mead.  
 Evanston: District No. 1, Homer H. Kingsley.  
 District No. 2, South Evanston, Fred. W. Nichols.  
 District No. 3, North Evanston, Arthur J. Snyder.  
 Freeport, R. S. Page.  
 Galena, I. C. Baker.  
 Galesburg, William L. Steele.  
 Jacksonville, David T. Harris.  
 Joliet, W. H. Campbell.  
 Kankakee, F. N. Tracy.  
 Kewanee, A. C. Butler.  
 LaSalle, L. A. Thomas.  
 Lincoln, A. L. Anderson.  
 Litchfield, J. E. Bryan.  
 Macomb, R. C. Rennick.  
 Mattoon, B. F. Armitage.

Metropolis City, Joel M. Bowlby.  
 Moline, H. M. Slauson.  
 Monmouth, James C. Burns.  
 Morris, John M. Boyer.  
 Oakpark, W. H. Hatch.  
 Ottawa, Samuel H. Heidler.  
 Pana: West Side and South Side, L. S. Ham.<sup>2</sup>  
 East Side, William Miner.  
 Paris, W. W. Black.  
 Pekin, K. S. Conklin.  
 Peoria, Newton Charles Dougherty.  
 Peru, W. W. Wirt.  
 Quincy, T. W. Macfall.  
 Rock Island, James E. Ament.  
 Rockford, P. R. Walker.  
 Springfield, J. H. Collins.  
 Spring Valley, F. S. Johnson.  
 Sterling: District No. 1, W. T. Tuttle.  
 District No. 3, H. L. Chaplin.  
 District No. 8, S. B. Hurst.  
 Streator, J. N. Patrick.  
 Urbana, J. W. Hays.  
 Wankegan, Frank H. Hall.

## INDIANA.

Anderson, John W. Carr.  
 Aurora, Sanford Bell.  
 Bloomington, W. H. Fertich.  
 Bluffton, W. P. Burris.  
 Brazil, John C. Gregg.  
 Columbus, J. A. Carnegie.  
 Connersville, W. F. L. Sanders.  
 Crawfordsville, Isaac M. Wellington.  
 Elkhart, D. W. Thomas.  
 Evansville, William A. Hester.  
 Fort Wayne, John S. Irwin.  
 Frankfort, Benjamin F. Moore.  
 Goshen, William H. Sims.  
 Greencastle, Robert A. Ogg.  
 Hammond, W. C. Belman.  
 Huntington, Robert I. Hamilton.  
 Indianapolis, David K. Goss.  
 Jeffersonville, P. P. Stultz.  
 Kokomo, Horace G. Woody.  
 Lafayette, Edward Ayres.  
 Laporte, James F. Knight.

Lawrenceburg, G. D. Knapp.  
 Lebanon, James R. Hart.  
 Logansport, Albert H. Douglass.  
 Madison, Thomas A. Mott.  
 Marion, Welford D. Weaver.  
 Michigan City, Edward Boyle.  
 Mount Vernon, Edwin S. Monroe.  
 Muncie, W. R. Snyder.  
 New Albany, W. H. Hershman.  
 Peru, ———.  
 Portland, C. L. Hotell.  
 Richmond, Justin N. Study.  
 Seymour, H. C. Montgomery.  
 Shelbyville, James H. Toulmin.  
 South Bend, Calvin Moon.  
 Terre Haute, William H. Wiley.  
 Valparaiso, Charles Henderson Wood.  
 Vincennes, Albert E. Humke.  
 Wabash, M. W. Harrison.  
 Warsaw, James H. Henry.  
 Washington, William F. Axtell.

## IOWA.

Atlantia, H. G. Lamsom.  
 Boone, George I. Miller.  
 Burlington, Charles Eldred Shelton.  
 Cedar Rapids, J. F. Merrill.  
 Centerville, F. E. Stephens.  
 Clinton, O. P. Bostwick.  
 Council Bluffs, Hugh W. Sawyer.  
 Creston, O. E. French.  
 Davenport, J. B. Young.  
 Des Moines: East Side, Amos Hiatt.  
 North Side, O. E. Smith.  
 West Side, Frank B. Cooper.  
 Dubuque, F. T. Oldt.  
 Fort Dodge, F. C. Wildes.

Fort Madison, C. H. Morrill.  
 Iowa City, W. F. Cramer.  
 Keokuk, O. W. Weyer.  
 Lemars, E. N. Coleman.  
 Lyons, J. H. Breese.  
 Marshalltown, F. E. Willard.  
 Mason City, A. R. Sale.  
 Mount Pleasant, John F. Riggs.  
 Muscatine, F. M. Witter.  
 Oskaloosa, Orion C. Scott.  
 Ottumwa, A. W. Stuart.  
 Sioux City, H. E. Kratz.  
 Waterloo: East Side, F. J. Sessions.  
 West Side, George A. Bateman.

## KANSAS.

Argentine, Charles R. Sortor.  
 Arkansas City, T. W. Conway.  
 Atchison, J. H. Glotfelter.  
 Emporia, John Dietrich.  
 Fort Scott, David M. Bowen.  
 Hutchinson, George W. Winans.  
 Junction City, George W. Kendrick.  
 Kansas City, Larkin L. Hanks.  
 Lawrence, Frank P. Smith.  
 Leavenworth, Miss Emma E. Dolphin, acting.

Newton, J. W. Cooper.  
 Ottawa, William M. Sinclair.  
 Parsons, S. D. Frazier.  
 Pittsburg, S. W. Black.  
 Salina, A. Ludlum.  
 Topeka, William M. Davidson.  
 Wellington, H. F. M. Bear.  
 Wichita, Frank R. Dyer.  
 Winfield, J. W. Spindler.

## KENTUCKY.

Ashland, John G. Crabbe.  
 Bowling Green, Edward Taylor.  
 Covington, John Morris.  
 Dayton, R. M. Mitchell.  
 Frankfort, McHenry Rhoads.  
 Henderson, Edward S. Clark.  
 Hopkinsville, Livingstone McCartney.  
 Lexington, William Rogers Clay.

Louisville, E. H. Mark.  
 Maysville, G. W. Blatterman.  
 Newport, John Burke.  
 Owensboro, James McGinniss.  
 Paducah, George O. McBroom.  
 Paris, E. W. Weaver.  
 Richmond, J. D. Clark.  
 Winchester, A. C. Fleshman.

<sup>1</sup> Principal.<sup>2</sup> Supervising principal.

## LOUISIANA.

Baton Rouge, Fred. J. Tunnard.<sup>1</sup>  
New Orleans, Warren Easton.

Shreveport, John L. Hargrove.

## MAINE.

Auburn, A. P. Wagg.  
Augusta, J. M. Wyman.  
Bangor, Miss Mary S. Snow.  
Bath, William H. Winslow.  
Belfast, Osman C. Evans.  
Biddeford, Royal E. Gould.  
Brewer, Mrs. Mertie M. Curtis.  
Brunswick, Franklin C. Robinson.  
Calais, S. E. Webber.  
Eastport, Charles Sumner Holton.

Ellsworth, H. A. Moore.  
Fort Fairfield, H. T. Powers.  
Gardiner, James M. Larrabee.<sup>2</sup>  
Lewiston, W. W. Stetson.  
Oldtown, Alfonso F. Marsh.<sup>2</sup>  
Portland, Orlando M. Lord.  
Rockland, Arthur P. Irving.  
Saco, John G. Locke.  
Sanford, Frank H. Dexter.  
Waterville, W. L. Waters.

## MARYLAND.

Annapolis, John G. Bannon.<sup>4</sup>  
Baltimore, Henry A. Wise.  
Cambridge, James L. Bryan.<sup>4</sup>

Cumberland, H. G. Weimer.<sup>4</sup>  
Frederick, Ephraim L. Boblitz.<sup>4</sup>  
Hagerstown, George C. Pearson.<sup>4</sup>

## MASSACHUSETTS.

Abington, W. H. Sanderson.  
Adams, ———.  
Amesbury, E. O. Perkins.<sup>5</sup>  
Amherst, William D. Parkinson.  
Andover, George E. Johnson.  
Arlington, W. H. Sanderson.  
Athol, Flora E. Kendall.  
Attleboro, J. O. Tiffany.  
Barnstable, Samuel W. Hallett.  
Beverly, Adelbert Leon Safford.  
Blackstone, Josiah B. Davis.  
Boston, Edwin P. Seaver.  
Braintree, Irving W. Horne.  
Bradford, R. D. McKeen.  
Bridgewater, W. H. Sanderson.  
Brockton, B. B. Russell.  
Brookline, Samuel T. Dutton.  
Cambridge, Francis Cogswell.  
Canton, James S. Perkins.  
Chelsea, Eben H. Davis.  
Chicopee, Clarence A. Brodeus.  
Clinton, Charles L. Hunt.  
Concord, William L. Eaton.  
Danvers, W. A. Baldwin.  
Dedham, Roderick Whittlesey Hine.  
Easton, Edward B. Maglathlin.  
East Hampton, B. C. Day.  
Everett, Randall J. Condon.  
Fall River, William C. Bates.  
Fitchburg, Joseph G. Edgerley.  
Framingham, Orville W. Collins.  
Franklin, Ernest D. Daniels.  
Gardner, Louis P. Nash.  
Gloucester, Freeman Putney.  
Grafton, Stanley H. Holmes.  
Greenfield, D. P. Dame.  
Haverhill, Albert L. Bartlett.  
Hingham, Elmer T. Curtiss.  
Holyoke, ———.  
Hopkinton, Alvan R. Lewis.  
Hydepark, Richard M. Johnson.<sup>5</sup>  
Lawrence, John E. Burke.  
Lowell, Arthur K. Whitcomb.  
Lynn, Orsamus B. Bruce.  
Malden, George E. Gay.  
Marblehead, Henry M. Walraat.  
Marlboro, B. W. Tinker.  
Medford, Charles H. Morss.

Melrose, Benjamin F. Robinson.  
Methuen, George E. Chickering.  
Middleboro, Asher J. Jacoby.  
Milford, Samuel F. Blodgett.  
Millbury, C. S. Lyman.  
Milton, M. W. Richardson.  
Natick, Frank Edson Parlin.  
New Bedford, William E. Hatch.  
Newburyport, William L. Lunt.  
Newton, George I. Aldrich.  
North Adams, Isaac Freeman Hall.  
Northampton, Alvin F. Pease.  
North Attleboro, William C. Hobbs.  
Northbridge, S. A. Melcher.  
Orange, Lizzie A. Mason.  
Palmer, W. H. Small.  
Peabody, John B. Gifford.  
Pittsfield, Eugene Bouten.  
Plymouth, Francis J. Heavens.  
Provincetown, Clarence W. Fearing.  
Quincy, H. W. Lull.  
Reading, Charles E. Hussey.  
Revere, Milton K. Putney.  
Rockport, M. Anna Wood.  
Salem, John W. Perkins.  
Saugus, C. E. Stevens.  
Somerville, Gordon A. Southworth.  
Southbridge, John T. Clarke.  
South Hadley, Edward H. McLachlin.  
Spencer, Wyman C. Fickett.  
Springfield, Thomas M. Balliet.  
Stoneham, C. E. Stevens.  
Taunton, C. F. Boyden.  
Wakefield, Charles E. Hussey.  
Waltham, Henry Whittemore.  
Ware, Frank E. Spaulding.  
Warren, Clarence A. Brodeus.  
Watertown, George R. Dwelley.  
Webster, J. I. Buck.  
Wellesley, Marshall Livingston Perrin.  
Westboro, H. C. Waldron.  
Westfield, G. H. Danforth.  
West Springfield, Ulysses G. Wheeler.  
Weymouth, I. M. Norcross.  
Winchendon, David B. Locke.  
Woburn, Thomas Emerson.  
Worcester, Clarence F. Carroll.

## MICHIGAN.

Adrian, A. E. Curtis.  
Albion, Warren C. Hull.  
Alpena, L. S. Norton.  
Ann Arbor, Walter S. Perry.  
Au Sable, C. M. Jansky.  
Battle Creek, F. W. Arbury.  
Bay City, John A. Stewart.  
Benton Harbor, Eugene A. Wilson.  
Big Rapids, James R. Miller.

Cadillac, J. H. Kaye.  
Charlotte, O. L. Miller.  
Cheboygan, William C. Thompson.  
Coldwater, Egbert L. Briggs.  
Detroit, W. E. Robinson.  
Escanaba, S. Sterrett Beggs.  
Flint, F. R. Hathaway.  
Grand Haven, ——— Crawford.  
Grand Rapids, W. W. Chalmers.

<sup>1</sup> Parish superintendent.

<sup>4</sup> County school examiner.

<sup>2</sup> Supervisor.

<sup>3</sup> Principal of the high school.

<sup>5</sup> Secretary of the school committee.

## MICHIGAN—Continued.

Hillsdale, W. L. Shuart.  
 Holland, C. M. McLean.  
 Ionia, C. L. Bemis.  
 Iron Mountain, T. W. Paton.  
 Ironwood, L. L. Wright.  
 Ishpeming, Richard Hardy.  
 Jackson: District No. 1, Thomas L. Evans.  
                   District No. 17, Martin L. Palmer.  
 Kalamazoo, O. E. Latham.  
 Lansing, S. B. Laird.  
 Ludington, H. T. Blodgett.  
 Manistee, Albert Jennings.  
 Marquette, Anna M. Chandler.  
 Menominee, O. I. Woodley.  
 Monroe, A. W. Tressler.

Mount Clemens, S. C. Price.  
 Muskegon, David Mackenzie.  
 Negaunee, F. D. Davis.  
 Niles, J. D. Schiller.  
 Owosso, J. W. Simmons.  
 Pontiac, F. E. Converse.  
 Port Huron, James H. Beazell.  
 Saginaw: East Side, A. S. Whitney.  
                   West Side, Edwin C. Thompson.  
 St. Joseph, George W. Loomis.  
 Sault Ste. Marie, E. E. Ferguson.  
 Traverse City, Charles T. Grawn.  
 West Bay City, N. A. Richards.  
 Wyandotte, A. W. Desef.  
 Ypsilanti, Austin George.

## MINNESOTA.

Anoka, Zenas N. Vaughn.  
 Austin, W. F. F. Selleck.  
 Brainerd, B. T. Hathaway.  
 Duluth, Robert E. Denfeld.  
 Faribault, George A. Franklin.  
 Fergus Falls, Caswell A. Ballard.  
 Mankato, George F. Kenaston.  
 Minneapolis, C. M. Jordan.  
 New Ulm, E. T. Critchett.

Owatonna, L. H. Ford.  
 Red Wing, F. V. Hubbard.  
 Rochester, F. D. Budlong.  
 St. Cloud, S. S. Parr.  
 St. Paul, Charles B. Gilbert.  
 St. Peter, Edgar George.  
 Stillwater, Frank A. Weld.  
 Winona, Buel T. Davis.

## MISSISSIPPI.

Columbus, J. M. Barrow.  
 Greenville, E. E. Bass.  
 Jackson, J. C. Hardy.

Meridian, J. G. Decupree.  
 Natchez, J. W. Henderson.  
 Vicksburg, Charles Pendleton Kemper.

## MISSOURI.

Bonne Terre, J. H. Malugen.  
 Boonville, D. T. Gentry.  
 Brookfield, L. A. Wirick.  
 Cape Girardeau, T. E. Joyce.  
 Carrollton, L. W. Rader.  
 Carthage, W. J. Stevens.  
 Chillicothe, W. F. Jamison.  
 Clinton, Charles B. Reynolds.  
 Columbia, R. H. Emberson.  
 De Soto, Charles M. Gill.  
 Fulton, John P. Gass.  
 Hannibal, R. B. D. Simonson.  
 Independence, William F. Bahlmann.  
 Jefferson City, J. U. White.  
 Joplin, W. B. Brown.  
 Kansas City, James M. Greenwood.  
 Kirksville, W. R. Holliday.

Lexington, H. D. Demand.  
 Louisiana, A. P. Settle.  
 Marshall, ———.  
 Maryville, A. E. Clarendon.  
 Mexico, D. A. McMillan.  
 Moberly, J. A. Whiteford.  
 Nevada, W. J. Hawkins.  
 Rich Hill, John P. Thurman.  
 St. Charles, George W. Jones.  
 St. Joseph, Edward B. Neely.  
 St. Louis, F. Louis Soldan.  
 Sedalia, George V. Buchanan.  
 Springfield, Jonathan Fairbanks.  
 Trenton, H. E. Du Bois.  
 Warrensburg, F. E. Holiday.  
 Webb City, A. G. Young.

## MONTANA.

Butte City, F. L. Kern.

Helena, James E. Klock.

## NEBRASKA.

Beatrice, W. H. Beeler.  
 Fremont, Daniel Miller.  
 Grand Island, Robert J. Barr.  
 Hastings, Edwin N. Brown.  
 Kearney, Jesse T. Morey.

Lincoln, J. F. Saylor.  
 Nebraska City, W. H. Skinner.  
 Omaha, Carroll G. Pearce.  
 Plattsmouth, J. H. McHugh.  
 South Omaha, A. A. Munro.

## NEVADA.

Virginia City, F. P. Langan.

## NEW HAMPSHIRE.

Concord, Louis J. Rundlett.  
 Dover, Channing Felsom.  
 Keene, Thaddeus William Harris.  
 Laconia, William N. Cragin.

Manchester, William E. Buck.  
 Nashua, James H. Fassett.  
 Portsmouth, James C. Simpson.  
 Rochester, Henry Kimball.

## NEW JERSEY.

Atlantic City, W. M. Pollard.  
 Payonne, Charles M. Davis.  
 Bordentown, William Macfarland.<sup>1</sup>  
 Bridgeton, John S. Turner.

Burlington, Wilbur Watts.<sup>1</sup>  
 Camden, Martin V. Bergen.  
 Elizabeth, William J. Shearer.  
 Gloucester, John C. Stinson.

<sup>1</sup> Principal.



## NEW JERSEY—Continued.

Hackensack, C. D. Bogart.<sup>1</sup>  
 Harrison, John Dwyer.<sup>1</sup>  
 Hoboken, David E. Rue  
 Jersey City, Henry Snyder.  
 Lambertville, Edward Rittenhouse.  
 Long Branch, Christopher Gregory.  
 Millville, E. C. Stokes.  
 Morristown, W. L. R. Haven.  
 New Brunswick, George G. Ryan.  
 Newark, William N. Barringer.  
 Orange, Usher W. Cutts.  
 Passaic, H. H. Hutton.

Paterson, J. A. Reinhart,  
 Perth Amboy, Samuel E. Shull.  
 Phillipsburg, H. Budd Howell.  
 Plainfield, Henry M. Maxson.  
 Rahway, Henry B. Rollinson.  
 Red Bank, Richard Case.  
 Salem, Morris H. Stratton.  
 South Amboy, R. M. Fitch.  
 Town of Union, Otto Ortel.<sup>2</sup>  
 Trenton, Leslie C. Pierson.<sup>3</sup>  
 Vineland, H. J. Wightman.  
 Woodbury, William Milligan.

## NEW MEXICO.

Albuquerque, Charles E. Hodgkin.

Santa Fe, H. H. Brodie.

## NEW YORK.

Albany, Charles W. Cole.  
 Albion, Freeman A. Greene.  
 Amsterdam, Charles S. Davis.  
 Auburn, Benjamin B. Snow.  
 Batavia, John Kennedy.  
 Binghamton, R. H. Halsey.  
 Brooklyn, William H. Maxwell.  
 Buffalo, Henry P. Emerson.  
 Canandaigua, J. Carlton Norris.  
 Catskill, Edward L. Stevens.  
 Cohoes, George E. Dixon.  
 College Point, ————  
 Corning, Leigh R. Hunt.  
 Cortland, C. V. Coon.  
 Dausville, W. G. Carmer.  
 Dunkirk, John W. Babcock.  
 Edgewater: District No. 1, J. W. Barris (post-office, Trumkinsville).  
     District No. 2 (Middletown and Southfield towns), A. Hall Burdick (post-office, Stapleton).  
     District No. —, S. J. Pardee (post-office, Rosebank).  
 Elmira, Elias J. Beardsley.  
 Fishkill, Watson S. Allen.<sup>1</sup>  
 Flushing, John J. Chickering.  
 Fulton, B. C. Clapp.<sup>1</sup>  
 Geneva, William H. Truesdale.  
 Glens Falls, Sherman Williams.  
 Gloversville, James A. Estee.  
 Greenbush, H. R. Jolley.  
 Green Island, James Heatly.  
 Haverstraw, L. O. Markham.<sup>1</sup>  
 Hempstead, Wallace S. Newton.<sup>1</sup>  
 Hoosick Falls, H. H. Snell.  
 Hornellsville, William R. Prentice.  
 Hudson, J. Mace Smith.  
 Ilion, Judson I. Wood.  
 Ithaca, H. W. Foster.  
 Jamaica, William J. Ballard.  
 Jamestown, Revillus E. Rogers.  
 Johnstown, William S. Snyder.  
 Kingston: Kingston school district, Charles M. Ryan.  
     District No. 2, William E. Buntin.<sup>1</sup>  
     District No. 3, Henry Powers.<sup>1</sup>  
     District No. 4, William A. McConnell.<sup>1</sup>  
 Lansingburg, George F. Sawyer.  
 Little Falls, Thomas A. Caswell.  
 Lockport, Emmet Belknap.  
 Long Island City, John E. Shull.  
 Lyons, W. H. Kinney.

Malone, Sarah L. Perry.  
 Matteawan, Gurdon E. Miller.  
 Medina, Henry Pease.  
 Middletown, James F. Tuthill.  
 Mount Vernon, Charles E. Nichols.  
 Newark, John W. Robinson.  
 New Brighton, Julia K. West.<sup>4</sup>  
 New Rochelle, Isaac E. Young.  
 New York, John Jasper.  
 Newburg, R. V. K. Monfort.  
 Niagara Falls, Nathaniel L. Benham.  
 North Tonawanda, Clinton S. Marsh.  
 Norwich, Elbert W. Griffith.  
 Nyack, Ira H. Lawton.  
 Ogdensburg, Barney Whitney.  
 Olean, Fox Holden.  
 Oneida: District No. 25, Frank W. Jennings.  
     District No. 26, H. H. Douglass.  
 Oneonta, Nathaniel N. Bull.  
 Oswego, George E. Bullis.  
 Owego, Edwin P. Recordon.  
 Peekskill: Drumhill district (District No. 7), John Millar.  
     Oaksides district (District No. 8), A. D. Dunbar.  
 Penn Yarn, William Joseph Pelo.  
 Plattsburg, James G. Riggs.  
 Port Chester, John C. Rockwell.  
 Port Jervis, John M. Dolph.  
 Port Richmond, S. E. Eldridge.<sup>1</sup>  
 Poughkeepsie, Edward Burgess.  
 Rochester, Milton Noyes.  
 Rome, William D. Mauro.  
 Saratoga Springs, Thomas R. Kneil.  
 Saugerties, Fred. N. Moulton.  
 Schenectady, Samuel B. Howe.  
 Seneca Falls, F. S. Porter.  
 Sing Sing, J. Irving Gorton.  
 Syracuse, A. B. Blodgett.  
 Tonawanda, F. J. Diamond.  
 Troy, John H. Willets.  
 Utica, George Griffith.  
 Waterford, Alexander Falconer.  
 Waterloo, Thomas C. Wilber.<sup>1</sup>  
 Watertown, William G. Williams.  
 Waverly, P. M. Hull.  
 West Chester, Michael E. Devlin.  
 West Troy, James R. Main.<sup>5</sup>  
 White Plains, Ralph A. Stewart.  
 Whitehall, W. W. Howe.  
 Woodhaven, Cyrus E. Smith.  
 Yonkers, Charles E. Gorton.

## NORTH CAROLINA.

Asheville, J. D. Eggleston, jr.  
 Charlotte, Alexander Graham.  
 Concord, J. F. Shinn.  
 Durham, Clinton W. Toms.  
 Fayetteville, B. C. McIver.  
 Goldsboro, J. I. Foust.  
 Henderson, J. B. White.<sup>6</sup>

Newbern, John S. Long.  
 Raleigh, Logan D. Howell.  
 Salisbury, R. G. Kizer.  
 Washington, J. Edwin Bowman.  
 Wilmington, M. C. S. Noble.  
 Winston, John Jay Blair.

<sup>1</sup> Principal.

<sup>2</sup> Post-office, Weehawken.

<sup>3</sup> Supervising principal, B. C. Gregory.

<sup>4</sup> School commissioner.

<sup>5</sup> School commissioner; post-office, Guilderland.

<sup>6</sup> Chairman of the school committee.

## NORTH DAKOTA.

Fargo, Darius Steward.

Grand Forks, J. N. Kelley.

## OHIO.

Akron, Elias Fraunfelter.  
Alliance, John E. Morris.  
Ashland, Sebastian Thomas.  
Ashtabula, J. S. Lowe.  
Avondale, A. B. Johnson.  
Bellaire, Benjamin T. Jones.  
Bellefontaine, Henry Whitworth.  
Brooklyn, Charles M. Knight.  
Bucyrus, J. J. Bliss.  
Cambridge, H. B. Williams.  
Canton, L. W. Day.  
Chillicothe, John A. Long.  
Cincinnati, William H. Morgan.  
Circleville, M. H. Lewis.  
Cleveland, Lewis H. Jones.  
Columbus, J. A. Shawan.  
Coshocton, J. F. Fenton.  
Dayton, W. J. White.  
Defiance, James McClunis.  
Delaware, George A. Chambers.  
Delphos, E. W. Hastings.  
East Liverpool, S. D. Sanor.  
Elyria, Henry M. Parker.  
Findlay, J. W. Zeller.  
Fostoria, H. L. Frank.  
Fremont, W. W. Ross.  
Galion, A. W. Lewis.  
Gallipolis, R. B. Ewing.  
Greenville, F. Gillum Cromer.  
Hamilton, S. L. Rose.  
Hillsboro, H. C. Minnich.  
Ironton, M. C. Smith.  
Jackson, J. E. Kinnison.  
Kent, A. B. Stutzman.  
Kenton, E. P. Dean.  
Lancaster, Elijah Burgess.  
Lima, Charles C. Miller.  
Lorain, F. D. Ward.

Mansfield, James W. Knott.  
Marietta, W. W. Boyd.  
Marion, Arthur Powell.  
Martins Ferry, W. H. Stewart.  
Massillon, Edmund A. Jones.  
Middletown, J. H. Rowland.  
Mount Vernon, Lewis D. Bonebrake.  
Nelsonville, Fletcher S. Coultrap.  
New Philadelphia, G. C. Maurer.  
Newark, J. C. Hartzler.  
Niles, Frank J. Roller.  
Norwalk, A. D. Beechy.  
Oberlin, George W. Waite.  
Painesville, George W. Ready.  
Piqua, C. W. Bennett.  
Pomeroy, T. C. Flanagan, acting.  
Portsmouth, Thomas Vickers.  
Salem, M. E. Hard.  
Sandusky, E. J. Shives.  
Sidney, E. S. Cox.  
Springfield, Carey Boggess.  
Stenbenville, Henry Ney Mertz.  
Tiffin, J. H. Snyder.  
Toledo, Harvey W. Compton.  
Troy, C. L. Van Cleve.  
Uhrichsville, R. B. Smith.  
Urbana, William McK. Vance.  
Van Wert, W. T. Bushman.  
Warren, R. S. Thomas.  
Wapakoneta, C. W. Williamson.  
Warren, R. S. Thomas.  
Washington, C. H., N. H. Chaney.  
Wellston, E. W. Patterson.  
Wellsville, James L. MacDonald.  
Wooster, Charles Haupt.  
Xenia, Edwin B. Cox.  
Youngstown, F. Trendley.  
Zanesville, W. D. Lash.

## OKLAHOMA.

Oklahoma, John A. McClain.

## OREGON.

Astoria, R. N. Wright.  
Portland, I. W. Pratt.

Salem, George A. Peebles.

## PENNSYLVANIA.

Allegheny, John Morrow.  
Allentown, F. D. Raub.  
Altoona, D. S. Keith.  
Archbald, R. N. Davis.<sup>1</sup>  
Ashland, William C. Estler.  
Beaver Falls, J. T. McKinley.  
Bellefonte, David O. Etters.  
Bethlehem, George W. Twitmyer.  
Bloomsburg, L. P. Sterner.  
Bradock, John S. Keefer.  
Bradford, E. E. Miller.  
Bristol, Matilda Swift Booz.  
Butler, ———.  
Carbondale, John J. Forbes.  
Carlisle, S. B. Shearer.  
Chambersburg, Frank E. Flickinger.  
Chester, Charles F. Foster.  
Columbia, S. H. Hoffman.  
Connellsville, W. G. Gans.<sup>1</sup>  
Conshohocken, J. Horace Landis.  
Corry, A. D. Colegrove.  
Danville, James C. Houser.  
Dubois, W. L. Greene.  
Dunmore, Norton T. Houser.  
Easton, William W. Cottingham.  
Erie, H. C. Missimer.  
Etna, J. G. A. Irvine.  
Franklin, N. P. Kinsley.  
Greensburg, Frank H. Shaw.  
Greenville, T. S. Lowden.

Hanover, George R. Prowell.  
Harrisburg, Lemuel O. Foose.  
Hazleton, David A. Harman.  
Homestead, John C. Kendall.  
Huntingdon, Kimber Cleaver.  
Johnstown, J. M. Berkey.  
Lancaster, R. K. Buehrle.  
Lansford, I. K. Witmer.  
Lebanon, Cyrus Boger.  
Lock Haven, John A. Robb.  
McKeesport, H. F. Brooks.  
Mahanoy City, William N. Erhart.  
Mauch Chunk, James J. Bevan.  
Meadville, Henry V. Hotchkiss.  
Middletown, H. H. Weber.  
Milton, Lewis A. Beardsley.  
Minersville, H. H. Spayd.<sup>2</sup>  
Monongahela City, E. W. Dalbey.<sup>2</sup>  
Mount Carmel, Samuel H. Denn.  
Nanticoke, Clarence B. Miller.  
New Brighton, J. Bardette Richey.  
New Castle, T. F. Kane.  
Norristown, Joseph K. Gotwals.  
Oil City, C. A. Babcock.  
Olyphant, M. W. Cumming.  
Philadelphia, Edward Brooks.  
Phoenixville, Harry F. Leister.  
Pittsburg, George J. Luckey.  
Pittston, Robert Shiel.<sup>1</sup>  
Plymouth (borough), Irving A. Heikes.<sup>1</sup>

<sup>1</sup> Supervising principal.

<sup>2</sup> Principal.

## PENNSYLVANIA—Continued.

Pottstown, William W. Rupert.  
 Pottsville, B. F. Patterson.  
 Reading, Ebenezer Mackey.  
 Renovo, James J. Palmer.<sup>1</sup>  
 St. Clair, Thomas G. Jones.  
 Scranton, George W. Phillips.  
 Shamokin, William F. Harpel.  
 Sharon, J. W. Canon.  
 Sharpsburg, E. B. McRoberts.  
 Shenandoah, C. D. Bogart.  
 South Bethlehem, Owen R. Wilt.  
 South Chester, J. C. Hockenberry.<sup>2</sup>  
 South Easton, A. J. LaBarre.<sup>3</sup>  
 Steelton, L. E. McGinnis.  
 Sunbury, C. D. Oberdorf.

Tamaqua, Robert F. Ditchburn.  
 Tarentum, B. S. Hannell.  
 Titusville, Robert D. Crawford.  
 Towanda, Minor Terry.<sup>4</sup>  
 Tyrone, C. E. Kaufman.  
 Uniontown, Lee Smith.  
 Warren, W. L. MacGowan.  
 Washington, A. G. Braden.  
 Waynesboro, R. T. Adams.<sup>4</sup>  
 West Chester, Addison Jones.  
 Wilkesbarre, James M. Coughlin.  
 Wilkinsburg, J. D. Anderson.  
 Williamsport, Charles Lose.  
 York, Atreus Wanner.

## RHODE ISLAND.

Bristol, John P. Reynolds.  
 Burrillville, Allen P. Keith.  
 Central Falls, Frank O. Draper.  
 Cranston, Valentine Almý.  
 Cumberland, Alvin D. Shepard.  
 East Providence, J. E. C. Farnham.

Johnston, Frederick B. Cole.<sup>5</sup>  
 Newport, Benjamin Baker.  
 Pawtucket, Gilman C. Fisher.  
 Providence, Horace S. Tarbell.  
 Westerly, C. H. Babcock.  
 Woonsocket, F. E. McFee.

## SOUTH CAROLINA.

Charleston, Henry P. Archer.  
 Columbia, E. S. Dreher.  
 Greenville, E. L. Hughes.

Spartanburg, Frank Evans.  
 Sumter, S. H. Edmunds.

## SOUTH DAKOTA.

Sioux Falls, Alexander M. Rowe.

Yankton, Edmund J. Vert.

## TENNESSEE.

Chattanooga, A. T. Barrett.  
 Clarksville, J. W. Graham.  
 Columbia, J. G. Meadors.  
 Jackson, Thomas H. Paine.

Johnson City, R. H. Freeland.  
 Knoxville, Albert Ruth.  
 Memphis, George W. Gordon.  
 Nashville, Z. H. Brown.

## TEXAS.

Austin, T. G. Harris.  
 Brenham, E. W. Tarrant.  
 Brownsville, J. F. Cummings.  
 Corpus Christi, Charles W. Crossley.  
 Corsicana, J. T. Hand.  
 Dallas, J. L. Long.  
 Denison, William Gay.  
 El Paso, G. P. Putnam.  
 Fort Worth, Alexander Hogg.  
 Gainesville, E. F. Comegys.  
 Galveston, Oscar H. Cooper.

Greenville, J. H. Van Amburgh,  
 Houston, W. S. Sutton.  
 Laredo, F. A. Parker.  
 Marshall, N. H. Wheat.  
 Palestine, P. V. Pennybacker.  
 Paris, J. G. Wooten.  
 San Antonio, J. E. Smith.  
 Sherman, W. Leonard Lemmon.  
 Temple, J. E. Blair.  
 Tyler, W. S. Potter.  
 Waco, Charles T. Alexander.

## UTAH.

Logan, John T. Caine, jr.  
 Ogden, William Allison.

Provo, William S. Rawlings.  
 Salt Lake City, J. F. Millsbaugh.

## VERMONT.

Barre, O. D. Mathewson.  
 Brattleboro, Miss M. Belle Smith.  
 Burlington, Henry O. Wheeler.  
 Montpelier, J. H. Lucia.

Rutland, Alfred Turner.  
 St. Albans, Francis A. Bagnall.  
 St. Johnsbury, William P. Kelley.

## VIRGINIA.

Alexandria, Koscinko Kemper.  
 Charlottesville, F. A. Massie.  
 Danville, Abner Anderson.  
 Fredericksburg, Benjamin P. Willis.  
 Lynchburg, E. C. Glass.  
 Manchester, A. H. Fitzgerald.<sup>4</sup>  
 Newport News, J. H. Crafford.<sup>6</sup>

Norfolk, Richard A. Dobie.  
 Petersburg, D. M. Brown.  
 Portsmouth, John C. Ashton.  
 Richmond, William F. Fox.  
 Roanoke, B. Rust.  
 Staunton, John H. Bader.  
 Winchester, Maurice M. Lynch.

## WASHINGTON.

Fairhaven, W. T. Hughes.  
 New Whatcom, Harry Pattison.  
 Olympia, W. H. Beeler.  
 Port Townsend, C. P. Anbert.<sup>4</sup>

Seattle, Frank J. Barnard.  
 Spokane Falls, D. Bemiss.  
 Tacoma, Henry M. James.  
 Walla Walla, R. C. Kerr.

<sup>1</sup> Supervising principal.

<sup>2</sup> Post office, Thurflow.

<sup>3</sup> Post-office, Easton.

<sup>4</sup> Principal.

<sup>5</sup> Post-office, Olneyville.

<sup>6</sup> County superintendent; post-office, Lee Hall.

## WEST VIRGINIA.

Charlestown, George S. Laidley.  
Huntington, James M. Lee.  
Martinsburg, A. B. Carman.

Parkersburg, W. M. Straus.  
Wheeling, W. H. Anderson.

## WISCONSIN.

Antigo, John E. Martin.  
Appleton, Carrie E. Morgan.  
Ashland, B. B. Jackson.  
Baraboo, J. E. NeCollins.  
Beaver Dam, J. E. McClure.  
Beloit, C. W. Merriman.  
Berlin, N. M. Dodson.  
Chippewa Falls, R. L. Barton.  
De Pere: East Side, Violet M. Alden.  
West Side, ———.  
Eau Claire, J. K. McGregor.  
Fond du Lac, Ed. McLoughlin.  
Green Bay, M. H. McMahon.  
Janesville, D. D. Mayne.  
Kaukauna, Hampton Corlett.  
Kenosha, Gerald R. McDowell.  
La Crosse, Albert Hardy.  
Madison, R. B. Dudgeon.  
Manitowee, H. Evans.

Marinette, J. T. Edwards.  
Menasha, Joseph L. Fieweger.  
Menominee, Judson E. Hoyt.  
Merrill, W. L. Holden.  
Milwaukee, George W. Peckham.  
Monroe, John Zimmerman.  
Neenah, E. A. Williams.  
Oconto, R. L. Cooley.  
Oshkosh, Rufus H. Halsey.  
Portage, William Fulton.  
Racine, ———.  
Sheboygan, George Heller.  
Stevens Point, Henry A. Simonds.  
Superior, A. W. Rankin.  
Watertown, C. F. Viebahn.  
Waukesha, A. J. Smith.  
Wausau, Karl Mathie.  
West Green Bay, A. W. Burton.  
White Water, E. W. Walker.

## WYOMING.

Cheyenne, James O. Churchill.

Laramie, Frank W. Lee.

## III.—COLLEGE PRESIDENTS.

## I.—Colleges for males and coeducational colleges of liberal arts.

| Name of president.                | University or college.                 | Address.                  |
|-----------------------------------|--|---------------------------|
| E. L. Blalock, A. M.              | Blount College.                        | Blountsville, Ala.        |
| Benedict Menges, O. S. B.         | St. Bernard College.                   | Cullman, Ala.             |
| A. D. Smith, A. M.                | Howard College.                        | East Lake, Ala.           |
| John O. Keener, D. D.             | Southern University.                   | Greensboro, Ala.          |
| J. H. Patterson, Ph. D.           | Lafayette College.                     | Lafayette, Ala.           |
| Henry J. Willingham, A. B.        | Lineville College.                     | Lineville, Ala.           |
| C. S. Dinkins.                    | Selma University.                      | Selma, Ala.               |
| James Lonergan, S. J.             | Spring Hill College.                   | Springhill, Ala.          |
| R. C. Jones, LL. D.               | University of Alabama.                 | University, Ala.          |
| Howard Billman.                   | University of Arizona.                 | Tucson, Ariz.             |
| G. C. Jones, A. M.                | Arkadelphia Methodist College.         | Arkadelphia, Ark.         |
| John W. Conger, A. M.             | Ouachita Baptist College.              | Do.                       |
| John I. Cleland, A. M.            | Arkansas College.                      | Batesville, Ark.          |
| James A. Laughlin.                | Arkansas Cumberland College.           | Clarksville, Ark.         |
| A. C. Millar, A. M.               | Hendrix College.                       | Conway, Ark.              |
| William F. Shedd.                 | Little Rock University.                | Little Rock, Ark.         |
| Thomas Mason, A. M., D. D.        | Philander Smith College.               | Do.                       |
| M. Shelby Kennard, A. M.          | Mountain Home Baptist College.         | Mountain Home, Ark.       |
| Martin Kellogg, A. M., LL. D.     | University of California.              | Berkeley, Cal.            |
| C. G. Baldwin.                    | Pomona College.                        | Claremont, Cal.           |
| Wm. Henslee, A. B.                | Pierce Christian College.              | College City, Cal.        |
| F. F. Jewell.                     | University of the Pacific.             | College Park, Cal.        |
| E. N. Condit, A. M.               | Occidental College.                    | Los Angeles, Cal.         |
| A. J. Meyer, C. M.                | St. Vincent's College.                 | Do.                       |
| T. G. Brownson.                   | California College.                    | Oakland, Cal.             |
| Brother Bettelin.                 | St. Mary's College.                    | Do.                       |
| C. H. Keyes, A. B.                | Throop Polytechnic Institute.          | Pasadena, Cal.            |
| Edward Allen, S. J.               | St. Ignatius College.                  | San Francisco, Cal.       |
| Joseph Riordan, S. J.             | Santa Clara College.                   | Santa Clara, Cal.         |
| J. S. Austin, A. M.               | Pacific Methodist College.             | Santa Rosa, Cal.          |
| D. S. Jordan, Ph. D., LL. D.      | Leland Stanford Junior University.     | Stanford University, Cal. |
| Geo. W. White, A. M.              | University of Southern California.     | University, Cal.          |
| A. L. Cowell, A. M.               | San Joaquin Valley College.            | Woodbridge, Cal.          |
| Henry D. McAncey, A. M.           | Hesperian College.                     | Woodland, Cal.            |
| James H. Baker, LL. D.            | University of Colorado.                | Boulder, Colo.            |
| Wm. F. Slocum, jr., LL. D.        | Colorado College.                      | Colorado Springs, Colo.   |
| John McLean.                      | Presbyterian College of the Southwest. | Del Norte, Colo.          |
| J. M. Marra, S. J.                | College of the Sacred Heart.           | Denver, Colo.             |
| Wm. F. McDowell, Ph. D., S. T. B. | University of Denver.                  | University Park, Colo.    |
| Geo. W. Smith, D. D., LL. D.      | Trinity College.                       | Hartford, Conn.           |
| B. P. Raymond, D. D., LL. D.      | Wesleyan University.                   | Middletown, Conn.         |
| Timothy Dwight, D. D., LL. D.     | Yale University.                       | New Haven, Conn.          |
| Geo. A. Harter, Ph. D.            | Delaware College.                      | Newark, Del.              |
| B. L. Whitman, D. D.              | Columbian University.                  | Washington, D. C.         |
| J. Havens Richards, S. J.         | Georgetown University.                 | Do.                       |
| J. E. Rankin, D. D., LL. D.       | Howard University.                     | Do.                       |



## III.—COLLEGE PRESIDENTS—Continued.

## I.—Colleges for males and coeducational colleges of liberal arts—Continued.

| Name of president.                   | University or college.                  | Address.               |
|--------------------------------------|---|------------------------|
| E. M. Gallaudet, Ph. D., LL. D...    | Gallaudet College.....                  | Washington, D. C.      |
| C. Gillespie, S. J. ....             | Gonzaga College.....                    | Do.                    |
| John E. Forbes, Ph. D. ....          | John E. Stetson University.....         | Deland, Fla.           |
| J. T. Nolen, A. B., B. D. ....       | Florida Conference College.....         | Leesburg, Fla.         |
| Charles H. More, Ph. D. ....         | St. Leo Military College.....           | St. Leo, Fla.          |
| A. F. Lewis, A. M. ....              | Seminary West of the Suwanee River..... | Tallahassee, Fla.      |
| Geo. M. Ward, A. M., B. D. ....      | Rollins College.....                    | Winter Park, Fla.      |
| Wm. E. Boggs, D. D., LL. D. ....     | University of Georgia.....              | Athens, Ga.            |
| Horace Bumstead, D. D. ....          | Atlanta University.....                 | Atlanta, Ga.           |
| A. Richardson.....                   | Morris Brown College.....               | Do.                    |
| C. O. Stubbs, A. M. ....             | Bowdon College.....                     | Bowdon, Ga.            |
| I. W. Waddell, D. D. ....            | North Georgia Agricultural College..... | Dahlonega, Ga.         |
| J. B. Gambrell, D. D. ....           | Mercer University.....                  | Macon, Ga.             |
| W. A. Candler, D. D. ....            | Emory College.....                      | Oxford, Ga.            |
| D. C. John, D. D. ....               | Clark University.....                   | South Atlanta, Ga.     |
| F. G. Webb, A. M. ....               | Nannie Lou Warthen College.....         | Wrightsville, Ga.      |
| W. F. Robinson.....                  | Young Harris College.....               | Young Harris, Ga.      |
| Franklin B. Gault, M. S. ....        | University of Idaho.....                | Moscow, Idaho.         |
| J. G. Evans, D. D., LL. D. ....      | Hedding College.....                    | Abingdon, Ill.         |
| Wm. H. Wilder, A. M., M. D. ....     | Illinois Wesleyan University.....       | Bloomington, Ill.      |
| M. J. Marsile, C. S. V. ....         | St. Viator's College.....               | Bourbonnais, Ill.      |
| Jas. E. Rogers, D. D., Ph. D. ....   | Blackburn University.....               | Carlinville, Ill.      |
| W. R. Ruthrauff.....                 | Carthage College.....                   | Carthage, Ill.         |
| Andrew S. Draper, LL. D. ....        | University of Illinois.....             | Champaign, Ill.        |
| J. F. X. Hoeffer, S. J. ....         | St. Ignatius College.....               | Chicago, Ill.          |
| Wm. E. Harper, Ph. D., D. D. ....    | University of Chicago.....              | Do.                    |
| W. E. Eugenebeel.....                | Austin College.....                     | Effingham, Ill.        |
| Daniel Irion.....                    | Evangelical Proseminary.....            | Ethelhurst, Ill.       |
| J. H. Hardin, LL. D. ....            | Eureka College.....                     | Eureka, Ill.           |
| Henry W. Rogers, LL. D. ....         | Northwestern University.....            | Evanston, Ill.         |
| J. A. Leavitt.....                   | Ewing College.....                      | Ewing, Ill.            |
| R. A. Morley, A. M. ....             | Northern Illinois College.....          | Fulton, Ill.           |
| J. H. Finley, A. M. ....             | Knox College.....                       | Galesburg, Ill.        |
| Charles E. Nash, D. D. ....          | Lombard University.....                 | Do.                    |
| J. C. McClure, A. M. ....            | Greer College.....                      | Hoopeston, Ill.        |
| John E. Bradley, Ph. D. ....         | Illinois College.....                   | Jacksonville, Ill.     |
| J. J. Halsey, A. M., acting.....     | Lake Forest University.....             | Lake Forest, Ill.      |
| M. H. Chamberlin, A. M., LL. B. .... | McKendree College.....                  | Lebanon, Ill.          |
| A. E. Turner, A. M. ....             | Lincoln University.....                 | Lincoln, Ill.          |
| J. B. McMichael, D. D. ....          | Monmouth College.....                   | Monmouth, Ill.         |
| H. J. Kiekhoefer, A. M. ....         | Northwestern College.....               | Naperville, Ill.       |
| Louis Haas, O. S. B. ....            | St. Bede College.....                   | Peru, Ill.             |
| B. W. Baker, A. M. ....              | Chaddock College.....                   | Quincy, Ill.           |
| Nicholas Leonard, O. S. F. ....      | St. Francis Solanus College.....        | Do.                    |
| Olof Olsson, D. D., Ph. D. ....      | Augustana College.....                  | Rock Island, Ill.      |
| Hugoline Storr, O. S. F. ....        | St. Joseph's Diocesan College.....      | Tentopolis, Ill.       |
| Austen K. de Blois, Ph. D. ....      | Shurtleff College.....                  | Upper Alton, Ill.      |
| B. L. Seneff, A. B. ....             | Westfield College.....                  | Westfield, Ill.        |
| Chas. A. Blanchard.....              | Wheaton College.....                    | Wheaton, Ill.          |
| A. C. Bacone, A. M. ....             | Indian University.....                  | Bacone, Ind. T.        |
| W. A. Caldwell, A. M. ....           | Henry Kendall College.....              | Muskogee, Ind. T.      |
| Joseph Swain, LL. D. ....            | Indiana University.....                 | Bloomington, Ind.      |
| Geo. S. Burroughs, Ph. D. ....       | Wabash College.....                     | Crawfordsville, Ind.   |
| Jos. Schmidt.....                    | Concordia College.....                  | Fort Wayne, Ind.       |
| William T. Stott, D. D. ....         | Franklin College.....                   | Franklin, Ind.         |
| H. A. Gobin, D. D. ....              | De Pauw University.....                 | Greencastle, Ind.      |
| D. W. Fisher, D. D., LL. D. ....     | Hanover College.....                    | Hanover, Ind.          |
| W. H. Davis.....                     | Hartsville College.....                 | Hartsville, Ind.       |
| Scot Butler, A. M. ....              | Butler University.....                  | Irrington, Ind.        |
| L. J. Aldrich, A. M., D. D. ....     | Union Christian College.....            | Merom, Ind.            |
| John H. Martin, A. M., D. D. ....    | Moores Hill College.....                | Moores Hill, Ind.      |
| Andrew Morrissey, C. S. C. ....      | University of Notre Dame.....           | Notre Dame, Ind.       |
| Joseph J. Mills, A. M., LL. D. ....  | Earlham College.....                    | Richmond, Ind.         |
| Geo. Hindley, B. D. ....             | Ridgeville College.....                 | Ridgeville, Ind.       |
| Fintan Mundwiler, O. S. B. ....      | St. Meinrad's College.....              | St. Meinrad, Ind.      |
| T. C. Reade, D. D. ....              | Taylor University.....                  | Upland, Ind.           |
| James Marshall, A. M., D. D. ....    | Coe College.....                        | Cedar Rapids, Iowa.    |
| J. Frederick Hirsch, A. M. ....      | Charles City College.....               | Charles City, Iowa.    |
| F. Richter.....                      | Wartburg College.....                   | Clinton, Iowa.         |
| J. M. Littlejohn, D. D., Ph. D. .... | Amity College.....                      | College Springs, Iowa. |
| Laur. Larsen.....                    | Luther College.....                     | Decorah, Iowa.         |
| H. L. Stetson, D. D. ....            | Des Moines College.....                 | Des Moines, Iowa.      |
| B. O. Aylesworth, LL. D. ....        | Drake University.....                   | Do.                    |
| Ambrose C. Smith, D. D. ....         | Parsons College.....                    | Fairfield, Iowa.       |
| John W. Bissell, A. M., D. D. ....   | Upper Iowa University.....              | Fayette, Iowa.         |
| George A. Gates, D. D. ....          | Iowa College.....                       | Grinnell, Iowa.        |
| Hugh Robinson, A. M. ....            | Lenox College.....                      | Hopkinton, Iowa.       |
| Fletcher Brown, A. M., B. D. ....    | Simpson College.....                    | Indianola, Iowa.       |
| Charles A. Schaeffer, Ph. D. ....    | State University of Iowa.....           | Iowa City, Iowa.       |

## III.—COLLEGE PRESIDENTS—Continued.

## I.—Colleges for males and coeducational colleges of liberal arts—Continued.

| Name of president.                         | University or college.               | Address.              |
|--|--------------------------------------|-----------------------|
| Friedrich Munz, A. M.                      | German College                       | Mount Pleasant, Iowa. |
| C. L. Stafford, D. D.                      | Iowa Wesleyan University             | Do.                   |
| Wm. F. King, LL. D.                        | Cornell College                      | Mount Vernon, Iowa.   |
| J. M. Atwater, A. M.                       | Oskaloosa College                    | Oskaloosa, Iowa.      |
| A. Rosenberger, A. B., LL. B.              | Penn College                         | Do.                   |
| Arthur B. Chaffee, D. D.                   | Central University of Iowa           | Pella, Iowa.          |
| George W. Carr                             | University of the Northwest          | Sioux City, Iowa.     |
| Willis Marshall                            | Buena Vista College                  | Storm Lake, Iowa.     |
| Wm. M. Brooks, A. M.                       | Tabor College                        | Tabor, Iowa.          |
| L. Bookwalter, D. D.                       | Western College                      | Toledo, Iowa.         |
| Jacob A. Clutz, D. D.                      | Midland College                      | Atchison, Kans.       |
| Innocent Wolf, O. S. B., D. D.             | St. Benedict's College               | Do.                   |
| L. H. Murlin, A. B., S. T. B.              | Baker University                     | Baldwin, Kans.        |
| E. H. Vaughan, Ph. D.                      | Soule College                        | Dodge City, Kans.     |
| J. D. Hewitt, D. D.                        | College of Emporia                   | Emporia, Kans.        |
| J. A. Weller, D. D.                        | Central College                      | Enterprise, Kans.     |
| W. D. McFarland, Ph. D.                    | Highland University                  | Highland, Kans.       |
| E. J. Hoenshel                             | Campbell University                  | Holton, Kans.         |
| F. H. Snow, Ph. D., LL. D.                 | University of Kansas                 | Lawrence, Kans.       |
| C. M. Brooke, A. M.                        | Lane University                      | Lecompton, Kans.      |
| C. A. Swenson, A. M.                       | Bethany College                      | Lindsborg, Kans.      |
| J. L. S. Riggs, Ph. D.                     | Ottawa University                    | Ottawa, Kans.         |
| Edward A. Higgins, S. J.                   | St. Mary's College                   | St. Marys, Kans.      |
| Edward W. Mueller, A. M.                   | Kansas Wesleyan University           | Salina, Kans.         |
| F. M. Spencer, D. D.                       | Cooper Memorial College              | Sterling, Kans.       |
|  | Washburn College                     | Topeka, Kans.         |
| A. W. Meyer                                | St. John's Lutheran College          | Winfield, Kans.       |
| Chester A. Place, A. M.                    | Southwest Kansas College             | Do.                   |
| Daniel Stevenson, D. D.                    | Union College                        | Barbourville, Ky.     |
| Wm. G. Frost, Ph. D.                       | Berea College                        | Berea, Ky.            |
| Wm. A. Obenchain, A. M.                    | Ogden College                        | Bowling Green, Ky.    |
| C. Lockhart, Ph. D.                        | Columbia Christian College           | Columbia, Ky.         |
| W. C. Young, D. D., LL. D.                 | Centre College                       | Danville, Ky.         |
| A. C. Davidson, D. D.                      | Georgetown College                   | Georgetown, Ky.       |
| H. J. Greenwell, A. M.                     | Liberty College                      | Glasgow, Ky.          |
| J. W. Hardy                                | South Kentucky College               | Hopkinsville, Ky.     |
| Milton Elliott                             | Garrard College                      | Lancaster, Ky.        |
| Charles L. Loos                            | Kentucky University                  | Lexington, Ky.        |
| L. H. Blanton, D. D.                       | Central University                   | Richmond, Ky.         |
| W. S. Ryland, D. D.                        | Bethel College                       | Russellville, Ky.     |
| John L. Steffan, D. D., Ph. D.             | St. Mary's College                   | St. Marys, Ky.        |
| E. H. Pearce, D. D.                        | Kentucky Wesleyan College            | Winchester, Ky.       |
| J. W. Nicholson, LL. D.                    | Louisiana State University           | Baton Rouge, La.      |
| James H. Blenk, S. M.                      | Jefferson College                    | Convent, La.          |
| C. W. Carter, D. D.                        | Centenary College of Louisiana       | Jackson, La.          |
| C. W. Tomkies                              | Keachie College                      | Keachie, La.          |
| D. McKiniry, S. J.                         | College of the Immaculate Conception | New Orleans, La.      |
| E. C. Mitchell, D. D.                      | Leland University                    | Do.                   |
| L. G. Adkinson, D. D.                      | New Orleans University               | Do.                   |
| Oscar Atwood, A. M.                        | Straight University                  | Do.                   |
| Wm. P. Johnston, LL. D.                    | Tulane University                    | Do.                   |
| William De Witt Hyde, D. D.                | Bowdoin College                      | Brunswick, Me.        |
| George C. Chase, A. M.                     | Bates College                        | Lewiston, Me.         |
| Nathaniel Butler, D. D.                    | Colby University                     | Waterville, Me.       |
| Thomas Fell, Ph. D., LL. D.                | St. John's College                   | Annapolis, Md.        |
| D. C. Gilman, LL. D.                       | Johns Hopkins University             | Baltimore, Md.        |
| John A. Morgan, S. J.                      | Loyola College                       | Do.                   |
| Francis J. Wagner, D. D.                   | Morgan College                       | Do.                   |
| Charles W. Reid, Ph. D.                    | Washington College                   | Chestertown, Md.      |
| Brother Maurice                            | Rock Hill College                    | Ellicott City, Md.    |
| C. B. Rex, D. D.                           | St. Charles College                  | Do.                   |
| Edward P. Allen, D. D.                     | Mount St. Marys College              | Mount St. Marys, Md.  |
| William H. Purnell, LL. D.                 | New Windsor College                  | New Windsor, Md.      |
| Thomas H. Lewis, A. M., D. D.              | Western Maryland College             | Westminster, Md.      |
| Merrill E. Gates, Ph. D., LL. D., L. H. D. | Amherst College                      | Amherst, Mass.        |
| Timothy Brosnahan, S. J.                   | Boston College                       | Boston, Mass.         |
| William F. Warren, LL. D.                  | Poston University                    | Do.                   |
| Charles W. Eliot, LL. D.                   | Harvard University                   | Cambridge, Mass.      |
| Samuel H. Lee                              | French-American College              | Springfield, Mass.    |
| Elmer H. Capen, D. D.                      | Tufts College                        | Tufts College, Mass.  |
| F. Carter, Ph. D., LL. D.                  | Williams College                     | Williamstown, Mass.   |
| G. Stanley Hall, Ph. D., LL. D.            | Clark University                     | Worcester, Mass.      |
| John F. Leahy, S. J.                       | College of the Holy Cross            | Do.                   |
| Denison C. Thomas, Ph. D.                  | Adrian College                       | Adrian, Mich.         |
| L. R. Fiske, D. D., LL. D.                 | Albion College                       | Albion, Mich.         |
| August F. Bruske, D. D.                    | Alma College                         | Alma, Mich.           |
| James B. Angell, LL. D.                    | University of Michigan               | Ann Arbor, Mich.      |
| George W. Caviness, A. M.                  | Battle Creek College                 | Battle Creek, Mich.   |

## III.—COLLEGE PRESIDENTS—Continued.

## I.—Colleges for males and coeducational colleges of liberal arts—Continued.

| Name of president.                       | University or college.              | Address.                |
|--|-------------------------------------|-------------------------|
| James G. Rodger, Ph. D.                  | Benzonia College                    | Benzonia, Mich.         |
| H. A. Schapman, S. J.                    | Detroit College                     | Detroit, Mich.          |
| George F. Mosher, LL. D.                 | Hillsdale College                   | Hillsdale, Mich.        |
| Gerrit J. Kollen, A. M.                  | Hope College                        | Holland, Mich.          |
| A. G. Slocum, LL. D.                     | Kalamazoo College                   | Kalamazoo, Mich.        |
| W. G. Sperry, D. D.                      | Olivet College                      | Olivet, Mich.           |
| Peter Engel, O. S. B., Ph. D.            | St. John's University               | Collegeville, Minn.     |
|  | Northwestern Christian College      | Excelsior, Minn.        |
| George H. Bridgman, D. D.                | Hamline University                  | Hamline, Minn.          |
| George Sverdrup                          | Augsburg Seminary                   | Minneapolis, Minn.      |
| Cyrus Northrop, LL. D.                   | University of Minnesota             | Do.                     |
| James W. Strong, D. D.                   | Carleton College                    | Northfield, Minn.       |
| Thorbjörn N. Mohn.                       | St. Olaf College                    | Do.                     |
| James Wallace, Ph. D.                    | Macalester College                  | St. Paul, Minn.         |
| C. W. Hertzler, A. B.                    | St. Paul's College                  | St. Paul Park, Minn.    |
| Matthias Wahlstrom, A. M.                | Gustavus Adolphus College           | St. Peter, Minn.        |
| Gideon A. Burgess, A. M.                 | Parker College                      | Winnebago City, Minn.   |
| J. W. Provine, Ph. D.                    | Mississippi College                 | Clinton, Miss.          |
| C. A. Huddleston, A. M.                  | Cooper-Huddleston College           | Daleville, Miss.        |
| Charles E. Libbey, S. T. D.              | Rust University                     | Holly Springs, Miss.    |
| W. B. Murrah, D. D.                      | Millsaps College                    | Jackson, Miss.          |
| Robert B. Fulton, A. M.                  | University of Mississippi           | University, Miss.       |
| P. O. Powell, A. M., B. D.               | Central Christian College           | Albany, Mo.             |
| W. H. Pritchett, A. M.                   | Northwest Missouri College          | Do.                     |
| Asa B. Bush, A. M.                       | Southwest Baptist College           | Bolivar, Mo.            |
| R. E. Downing, B. Sur.                   | Pike College                        | Bowling Green, Mo.      |
| Chas. F. Spray, A. M.                    | Missouri Wesleyan College           | Cameron, Mo.            |
| Clinton Lockhart, Ph. D.                 | Christian University                | Canton, Mo.             |
| J. A. Linn, C. M.                        | St. Vincent's College               | Cape Girardeau, Mo.     |
| Richard H. Jesse, LL. D.                 | University of the State of Missouri | Columbia, Mo.           |
| Geo. W. Mitchell                         | Grand River Christian Union College | Edinburg, Mo.           |
| Tyson S. Dines, A. M.                    | Central College                     | Fayette, Mo.            |
| Edward C. Gordon, D. D.                  | Westminster College                 | Fulton, Mo.             |
| Chas. C. Hemenway                        | Pritchett School Institute          | Glasgow, Mo.            |
| Edwin W. Doran                           | Ozark College                       | Greenfield, Mo.         |
| Jero T. Muir                             | La Grange College                   | La Grange, Mo.          |
| Carleton B. Marsh, A. B.                 | Lawson Presbyterian College         | Lawson, Mo.             |
| J. P. Greco, D. D., LL. D.               | William Jewell College              | Liberty, Mo.            |
| Wm. H. Black, D. D.                      | Missouri Valley College             | Marshall, Mo.           |
| W. H. Winton                             | Morrisville College                 | Morrisville, Mo.        |
| C. C. Woods, D. D.                       | Scarritt Collegiate Institute       | Neosho, Mo.             |
| L. M. McAfee                             | Park College                        | Parkville, Mo.          |
| B. H. Marbury                            | St. Charles College                 | St. Charles, Mo.        |
| Brother Paulian, F. S. C.                | College of the Christian Brothers   | St. Louis, Mo.          |
| Joseph Grimmelsman, S. J.                | St. Louis University                | Do.                     |
| Winfield S. Chaplin, LL. D.              | Washington University               | Do.                     |
| Homer T. Fuller, Ph. D.                  | Drury College                       | Springfield, Mo.        |
| J. A. Thompson, A. M.                    | Tarkio College                      | Tarkio, Mo.             |
| F. A. Z. Kumler, A. M.                   | Avalon College                      | Trenton, Mo.            |
| Geo. B. Addicks, A. M.                   | Central Wesleyan College            | Warrenton, Mo.          |
| A. B. Martin, A. M.                      | College of Montana                  | Deer Lodge, Mont.       |
| David R. Kerr, Ph. D., D. D.             | University of Omaha                 | Bellevue, Nebr.         |
| David R. Dungan, A. M.                   | Cotner University                   | Bethany, Nebr.          |
| J. W. Loughhead                          | Union College                       | College View, Nebr.     |
| David B. Perry, A. M.                    | Doane College                       | Crete, Nebr.            |
| A. J. Mercer, A. M.                      | Fairfield College                   | Fairfield, Nebr.        |
| Geo. E. MacLean, LL. D.                  | University of Nebraska              | Lincoln, Nebr.          |
| J. F. Ellis, D. D.                       | Gates College                       | Neligh, Nebr.           |
| John Pahls, S. J.                        | Creighton University                | Omaha, Nebr.            |
| Isaac Crook, D. D.                       | Nebraska Wesleyan University        | University Place, Nebr. |
| W. S. Reese                              | York College                        | York, Nebr.             |
| Joseph E. Stubbs, D. D.                  | State University of Nevada          | Reno, Nev.              |
| W. J. Tucker, D. D., LL. D.              | Dartmouth College                   | Hanover, N. H.          |
| Hilary Francie, O. S. B.                 | St. Benedict's College              | Newark, N. J.           |
| Austin Scott, Ph. D., LL. D.             | Rutgers College                     | New Brunswick, N. J.    |
| F. L. Patton, D. D., LL. D.              | College of New Jersey               | Princeton, N. J.        |
| Wm. F. Marshall, A. M.                   | Seton Hall College                  | South Orange, N. J.     |
| E. S. Stover                             | University of New Mexico            | Albuquerque, N. Mex.    |
| C. C. Davis, A. M.                       | Alfred University                   | Alfred, N. Y.           |
| Joseph F. Butler, O. S. F.               | St. Bonaventure's College           | Allegany, N. Y.         |
| R. B. Fairbairn, D. D., LL. D.           | St. Stephen's College               | Anandale, N. Y.         |
| D. H. Cochran, Ph. D., LL. D.            | Polytechnic Institute of Brooklyn   | Brooklyn, N. Y.         |
| Brother Jerome, O. S. F.                 | St. Francis College                 | Do.                     |
| J. A. Hartnett, C. M.                    | St. John's College                  | Do.                     |
| John I. Zahm, S. J.                      | Canisius College                    | Buffalo, N. Y.          |
| John C. Lec, Ph. D., D. D.               | St. Lawrence University             | Canton, N. Y.           |
| M. Woolsey Stryker, D. D.                | Hamilton College                    | Clinton, N. Y.          |
| E. N. Potter, S. T. D., LL. D., D. C. L. | Hobart College                      | Geneva, N. Y.           |



## III.—COLLEGE PRESIDENTS—Continued.

## 1.—Colleges for males and coeducational colleges of liberal arts—Continued.

| Name of president.               | University or college.             | Address.                  |
|----------------------------------|------------------------------------|---------------------------|
| Geo. W. Smith, A. B., LL. B.     | Colgate University                 | Hamilton, N. Y.           |
| J. G. Schurman, Sc. D., LL. D.   | Cornell University                 | Ithaca, N. Y.             |
| Thomas E. Murphy, S. J.          | College of St. Francis Xavier      | New York, N. Y.           |
| Alexander S. Webb, LL. D.        | College of the City of New York    | Do.                       |
| Seth Low, LL. D.                 | Columbia University                | Do.                       |
| Brother Justin, A. M.            | Manhattan College                  | Do.                       |
| Thomas J. Gannon, S. J.          | St. John's College                 | Do.                       |
| H. M. MacCracken, D. D., LL. D.  | University of the City of New York | Do.                       |
| P. S. MacHale, C. M.             | Niagara University                 | Niagara University, N. Y. |
| David J. Hill, LL. D.            | University of Rochester            | Rochester, N. Y.          |
| A. V. V. Raymond, D. D.          | Union University                   | Schenectady, N. Y.        |
| James R. Day, D. D.              | Syracuse University                | Syracuse, N. Y.           |
| E. A. Alderman, Ph. B.           | University of North Carolina       | Chapel Hill, N. C.        |
| D. J. Sanders, D. D.             | Biddle University                  | Charlottesville, N. C.    |
| J. B. Shearer, D. D., LL. D.     | Davidson College                   | Davidson, N. C.           |
| John C. Kilgo, D. D.             | Trinity College                    | Durham, N. C.             |
| L. Lyndon Hobbs, A. M.           | Guilford College                   | Guilford College, N. C.   |
| Robert A. Yoder, A. M.           | Lenoir College                     | Hickory, N. C.            |
| M. G. G. Scherer, A. M.          | North Carolina College             | Mount Pleasant, N. C.     |
| J. C. Clapp, D. D.               | Catawba College                    | Newton, N. C.             |
| Chas. F. Meserve, A. M.          | Shaw University                    | Raleigh, N. C.            |
| W. E. Abernethy                  | Rutherford College                 | Rutherford College, N. C. |
| William H. Goler, D. D.          | Livingstone College                | Salisbury, N. C.          |
| C. E. Taylor, D. D., Litt. B.    | Wake Forest College                | Wake Forest, N. C.        |
| M. A. Yost, A. M.                | Weaverville College                | Weaverville, N. C.        |
| Henry C. Simmons                 | Fargo College                      | Fargo, N. Dak.            |
| W. Merrifield, A. M.             | University of North Dakota         | University, N. Dak.       |
| M. V. B. Knox, D. D.             | Red River Valley University        | Wahpeton, N. Dak.         |
| Tamerlane P. Marsh, D. D.        | Buchtel College                    | Akron, Ohio.              |
| J. Allen Miller                  | Mount Union College                | Alliance, Ohio.           |
| Chas. W. Super, Ph. D.           | Ashland University                 | Ashland, Ohio.            |
| Millard F. Warner, A. M.         | Ohio University                    | Athens, Ohio.             |
| C. Riemenschneider, Ph. D.       | Baldwin University                 | Berea, Ohio.              |
| David McKinney                   | German Wallace College             | Do.                       |
| James Rogers, C. S. C.           | Cedarville College                 | Cedarville, Ohio.         |
| A. J. Burrowes, S. J.            | St. Joseph's College               | Cincinnati, Ohio.         |
| P. V. N. Myers                   | St. Xavier College                 | Do.                       |
| H. J. Raetenik, D. D.            | University of Cincinnati           | Do.                       |
| Joseph H. Le Halle               | Calvin College                     | Cleveland, Ohio.          |
| Chas. F. Thwing, D. D.           | St. Ignatius College               | Do.                       |
| F. W. Steinhorn                  | Western Reserve University         | Do.                       |
| James H. Canfield, LL. D.        | Capital University                 | Columbus, Ohio.           |
| A. Grabowski, Ph. D.             | Ohio State University              | Do.                       |
| James W. Bashford, Ph. D.        | Defiance College                   | Defiance, Ohio.           |
| Chas. T. Fox, A. M., acting      | Ohio Wesleyan University           | Delaware, Ohio.           |
| D. B. Purinton, A. M., LL. D.    | Findlay College                    | Findlay, Ohio.            |
| Ely V. Zollars, LL. D.           | Kenyon College                     | Gambier, Ohio.            |
| Carl Ackerman                    | Denison University                 | Granville, Ohio.          |
| John W. Simpson, D. D., LL. D.   | Hiram College                      | Hiram, Ohio.              |
| W. A. Williams, D. D.            | Lima College                       | Lima, Ohio.               |
| Jesse Johnson                    | Marietta College                   | Marietta, Ohio.           |
| Wm. G. Ballantine, D. D., LL. D. | Franklin College                   | New Athens, Ohio.         |
| Wm. O. Thompson, D. D.           | Muskingum College                  | New Concord, Ohio.        |
| Geo. W. MacMillan, Ph. D., D. D. | Oberlin College                    | Oberlin, Ohio.            |
| John M. Davis, Ph. D.            | Miami University                   | Oxford, Ohio.             |
| W. G. Compher, Ph. D.            | Richmond College                   | Richmond, Ohio.           |
| Samuel A. Ort, D. D.             | Rio Grande College                 | Rio Grande, Ohio.         |
| John A. Peters, D. D.            | Scio College                       | Scio, Ohio.               |
| Thomas J. Sanders, Ph. D.        | Wittenberg College                 | Springfield, Ohio.        |
| S. T. Mitchell, A. M., LL. D.    | Heidelberg University              | Tiffin, Ohio.             |
| James B. Unthank, M. S.          | Otterbein University               | Westerville, Ohio.        |
| S. F. Scovel, D. D.              | Wilberforce University             | Wilberforce, Ohio.        |
| Daniel A. Long, D. D., LL. D.    | Wilmington College                 | Wilmington, Ohio.         |
| D. R. Boyd, A. M.                | University of Wooster              | Wooster, Ohio.            |
| Chas. H. Chapman, Ph. D.         | Antioch College                    | Yellow Springs, Ohio.     |
| Thomas McClelland, D. D.         | University of Oklahoma             | Norman, Okla.             |
| C. C. Poling, Ph. B.             | University of Oregon               | Engene, Oreg.             |
| H. L. Boardman                   | Pacific University                 | Forest Grove, Oreg.       |
| Thomas Newlin                    | Lafayette Seminary                 | Lafayette, Oreg.          |
| B. E. Emerick, A. M.             | McMinnville College                | McMinnville, Oreg.        |
| Willis C. Hawley, A. M.          | Pacific College                    | Newberg, Oreg.            |
| C. C. Stratton, D. D.            | Philomath College                  | Philomath, Oreg.          |
| W. J. Holland, Ph. D., D. D.     | Willamette University              | Salem, Oreg.              |
| Theodore L. Seip, D. D.          | Portland University                | University Park, Oreg.    |
| E. B. Bierman, Ph. D.            | Western University of Pennsylvania | Allegheny, Pa.            |
| Leander Schnerr                  | Muhlenberg College                 | Allentown, Pa.            |
| W. P. Johnston, A. M.            | Lebanon Valley College             | Anville, Pa.              |
|                                  | St. Vincent College                | Beatty, Pa.               |
|                                  | Geneva College                     | Beaver Falls, Pa.         |



## III.—COLLEGE PRESIDENTS—Continued.

## I.—Colleges for males and coeducational colleges of liberal arts—Continued.

| Name of president.                   | University or college.                 | Address.                  |
|--------------------------------------|--|---------------------------|
| Aug. Schultz, D. D.                  | Moravian College                       | Bethlehem, Pa.            |
| George E. Reed, D. D., LL. D.        | Dickinson College                      | Carlisle, Pa.             |
| C. E. Hyatt, C. E.                   | Pennsylvania Military College          | Chester, Pa.              |
| Henry T. Spangler, D. D.             | Ursinus College                        | Collegeville, Pa.         |
| E. D. Wartfield, LL. D.              | Lafayette College                      | Easton, Pa.               |
| H. W. McKnight, D. D., LL. D.        | Pennsylvania College                   | Gettysburg, Pa.           |
| Theo. B. Roth, D. D.                 | Thiel College                          | Greenville, Pa.           |
| Isaac C. Ketler, Ph. D.              | Grove City College                     | Grove City, Pa.           |
| Isaac Sharpless, Sc. D., LL. D.      | Haverford College                      | Haverford, Pa.            |
| S. T. Wiley                          | Monongahela College                    | Jefferson, Pa.            |
| John S. Stahr, Ph. D., D. D.         | Franklin and Marshall College          | Lancaster, Pa.            |
| John H. Harris, Ph. D.               | Bucknell University                    | Lewisburg, Pa.            |
| Isaac N. Rendall, D. D.              | Lincoln University                     | Lincoln University, Pa.   |
| Brother Athanasius                   | St. Francis College                    | Loretto, Pa.              |
| Wm. H. Crawford, D. D.               | Allegheny College                      | Meadville, Pa.            |
| Aaron E. Gobble, A. M.               | Central Pennsylvania College           | New Berlin, Pa.           |
| R. G. Ferguson, D. D.                | Westminster College                    | New Wilmington, Pa.       |
| R. E. Thompson, D. D.                | Central High School                    | Philadelphia, Pa.         |
| Brother Isidore                      | La Salle College                       | Do.                       |
| Charles C. Harrison, A. M.           | University of Pennsylvania             | Do.                       |
| J. M. Wisman, A. M.                  | Duquesne College                       | Pittsburg, Pa.            |
| John T. Murphy, C. S. Sp.            | Holy Ghost College                     | Do.                       |
| G. W. Atherton, LL. D.               | Pennsylvania State College             | State College, Pa.        |
| Charles De Garmo, Ph. D.             | Swarthmore College                     | Swarthmore, Pa.           |
| Laurence A. Delurey, O. S. A.        | Villanova College                      | Villanova, Pa.            |
| A. A. Galbreath                      | Volant College                         | Volant, Pa.               |
| James D. Moffat, D. D.               | Washington and Jefferson College       | Washington, Pa.           |
| E. B. Andrews, D. D., LL. D.         | Brown University                       | Providence, R. I.         |
| H. E. Shepherd, A. M., LL. D.        | College of Charleston                  | Charleston, S. C.         |
| E. C. Murray                         | Presbyterian College of South Carolina | Clinton, S. C.            |
| J. W. Morris                         | Allen University                       | Columbia, S. C.           |
| Jas. Woodrow, Ph. D., LL. D.         | South Carolina College                 | Do.                       |
| W. M. Grier, D. D.                   | Erskine College                        | Due West, S. C.           |
| Charles Manly, D. D.                 | Furman University                      | Greenville, S. C.         |
| Geo. B. Cromer, A. M.                | Newberry College                       | Newberry, S. C.           |
| L. M. Duntun, D. D.                  | Claffin University                     | Orangeburg, S. C.         |
| James H. Carlisle, LL. D.            | Wofford College                        | Spartanburg, S. C.        |
| Wm. M. Blackburn, D. D.              | Pierre University                      | East Pierre, S. Dak.      |
| J. W. Hancher, M. S., A. M.          | Black Hills College                    | Hot Springs, S. Dak.      |
| W. I. Graham, A. M.                  | Dakota University                      | Mitchell, S. Dak.         |
| I. P. Patch                          | Redfield College                       | Redfield, S. Dak.         |
| Joseph W. Mauck, A. M.               | University of South Dakota             | Vermilion, S. Dak.        |
| H. K. Warren                         | Yankton College                        | Yankton, S. Dak.          |
| J. Albert Wallace, D. D.             | King College                           | Bristol, Tenn.            |
| Isaac W. Joyce, D. D., LL. D.        | U. S. Grant University                 | Chattanooga, Tenn.        |
| George Summey, D. D.                 | Southwestern Presbyterian University   | Clarksville, Tenn.        |
| J. F. Spence, S. T. D., LL. D.       | American Temperance University         | Harriman, Tenn.           |
| J. L. McGhee                         | Hiwassee College                       | Hiwassee College, Tenn.   |
| G. M. Savage, A. M., LL. D.          | Southwestern Baptist University        | Jackson, Tenn.            |
| J. S. McCulloch, D. D.               | Knoxville College                      | Knoxville, Tenn.          |
| Chas. W. Dabney, jr., Ph. D., LL. D. | University of Tennessee                | Do.                       |
| N. Green, LL. D.                     | Cumberland University                  | Lebanon, Tenn.            |
| J. L. Dickens, Ph. D., LL. D.        | Bethel College                         | McKenzie, Tenn.           |
| S. W. Boardman, LL. D.               | Maryville College                      | Maryville, Tenn.          |
| Brother Maurelian                    | Christian Brothers' College            | Memphis, Tenn.            |
| J. Hopwood, A. M.                    | Milligan College                       | Milligan, Tenn.           |
| J. T. Henderson, A. M.               | Carson and Newman College              | Mossy Creek, Tenn.        |
| J. Braden, D. D.                     | Central Tennessee College              | Nashville, Tenn.          |
| E. M. Cravath, D. D.                 | Fisk University                        | Do.                       |
| Owen James, D. D.                    | Roger Williams University              | Do.                       |
| Wm. H. Payne, LL. D.                 | University of Nashville                | Do.                       |
| James H. Kirkland, Ph. D.            | Vanderbilt University                  | Do.                       |
| B. Lawton Wiggins, A. M.             | University of the South                | Sewanee, Tenn.            |
| W. N. Billingsley, A. M.             | Burritt College                        | Spencer, Tenn.            |
| J. L. Bachman, A. M.                 | Sweetwater College                     | Sweetwater, Tenn.         |
| Jerre Moore, D. D.                   | Greenville and Tusculum College        | Tusculum, Tenn.           |
| James T. Cooter, A. B.               | Washington College                     | Washington College, Tenn. |
| P. P. Klein, C. S. C.                | St. Edward's College                   | Austin, Tex.              |
| Geo. T. Winston, LL. D.              | University of Texas                    | Do.                       |
| G. Langner                           | Evangelical Lutheran College           | Brenham, Tex.             |
| J. D. Robnett, D. D.                 | Howard Payne College                   | Brownwood, Tex.           |
| T. H. Bridges                        | Henry College                          | Campbell, Tex.            |
| Oscar L. Fisher, A. M., B. D.        | Fort Worth University                  | Fort Worth, Tex.          |
| John O'Shanahan, S. J.               | St. Mary's University                  | Galveston, Tex.           |
| John H. McLean, A. M., D. D.         | Southwestern University                | Georgetown, Tex.          |
| I. B. Scott, D. D.                   | Wiley University                       | Marshall, Tex.            |
| John Wolf                            | St. Louis College                      | San Antonio, Tex.         |
| S. M. Luckett, D. D.                 | Austin College                         | Sherman, Tex.             |
| B. D. Cockrill                       | Trinity University                     | Tehuacana, Tex.           |

## III.—COLLEGE PRESIDENTS—Continued.

## I.—Colleges for males and coeducational colleges of liberal arts—Continued.

| Name of president.               | University or college.           | Address.              |
|----------------------------------|----------------------------------|-----------------------|
| Addison Clark, LL. D.            | Add-Ran Christian University     | Thorp Spring, Tex.    |
| R. C. Burleson, D. D., LL. D.    | Baylor University                | Waco, Tex.            |
| H. T. Kealing, A. M.             | Paul Quinn College               | Do.                   |
| Wm. J. Kerr                      | Brigham Young College            | Logan, Utah.          |
| James E. Talmage, Sc. D., Ph. D. | University of Utah               | Salt Lake City, Utah. |
| Matthew H. Buckham, D. D.        | University of Vermont            | Burlington, Vt.       |
| Ezra Brainerd, LL. D.            | Middlebury College               | Middlebury, Vt.       |
| Wm. W. Smith, LL. D.             | Randolph-Macon College           | Ashland, Va.          |
| W. B. Yount                      | Bridgewater College              | Bridgewater, Va.      |
| P. B. Barringer, M. D.           | University of Virginia           | Charlottesville, Va.  |
| R. G. Waterhouse, D. D.          | Emory and Henry College          | Emory, Va.            |
| Richard McIlwaine, D. D.         | Hampton-Sidney College           | Hampton-Sidney, Va.   |
| G. W. C. Lee, LL. D.             | Washington and Lee University    | Lexington, Va.        |
| F. W. Boatwright, A. M.          | Richmond College                 | Richmond, Va.         |
| Julius D. Dreher, Ph. D.         | Roanoke College                  | Salem, Va.            |
| L. G. Tyler, LL. D.              | College of William and Mary      | Williamsburg, Va.     |
| A. C. Jones                      | Vashon College                   | Burton, Wash.         |
| F. N. English, A. M.             | Colfax College                   | Colfax, Wash.         |
| E. A. Sutherland                 | Walla Walla College              | College Place, Wash.  |
|                                  | University of Seattle            | Seattle, Wash.        |
| M. W. Harrington, Ph. D.         | University of Washington         | Do.                   |
| Calvin W. Stewart, D. D.         | Whitworth College                | Sumner, Wash.         |
| C. R. Thoburn                    | Puget Sound University           | Tacoma, Wash.         |
| Hiram P. Sufndon                 | St. James College                | Vancouver, Wash.      |
| S. B. L. Penrose                 | Whitman College                  | Walla Walla, Wash.    |
| J. P. Marshall, A. M.            | Barboursville College            | Barboursville, W. Va. |
| H. McDearmid, A. M.              | Bethany College                  | Bethany, W. Va.       |
| Hayward Fleming, acting          | West Virginia College            | Flemington, W. Va.    |
| J. L. Goodknight, D. D.          | West Virginia University         | Morgantown, W. Va.    |
| Samuel Plantz, Ph. D., D. D.     | Lawrence University              | Appleton, Wis.        |
| E. D. Eaton, D. D., LL. D.       | Beloit College                   | Beloit, Wis.          |
| H. A. Muehlmeier, D. D.          | Mission House                    | Franklin, Wis.        |
| J. George                        | Gale College                     | Galesville, Wis.      |
| Chas. K. Adams, LL. D.           | University of Wisconsin          | Madison, Wis.         |
| Wm. C. Whitford, D. D.           | Milton College                   | Milton, Wis.          |
| Leopold Bushart, S. J.           | Marquette College                | Milwaukee, Wis.       |
| Rufus C. Flagg, D. D.            | Ripon College                    | Ripon, Wis.           |
| Joseph Rainer                    | Seminary of St. Francis of Sales | St. Francis, Wis.     |
| A. F. Ernst                      | Northwestern University          | Watertown, Wis.       |
| Frank P. Graves, Ph. D.          | University of Wyoming            | Laramie, Wyo.         |

## II.—Colleges for women.

|                             |                                       |                      |
|-----------------------------|---------------------------------------|----------------------|
| V. O. Hawkins               | Athens Female College                 | Athens, Ala.         |
| Henry A. Moody, M. D.       | Bailey Springs University             | Bailey Springs, Ala. |
| Solomon Palmer, Ph. D.      | East Lake Athenæum                    | East Lake, Ala.      |
| T. J. Simmons, A. M.        | Union Female College                  | Enfauila, Ala.       |
| A. H. Todd                  | Synodical Female College              | Florence, Ala.       |
| A. B. Jones, D. D., LL. D.  | Jones College for Young Ladies        | Gadsden, Ala.        |
| S. W. Averett, LL. D.       | Judson Female Institute               | Marion, Ala.         |
| Jas. D. Wade, A. M.         | Marion Female Seminary                | Do.                  |
| Geo. R. McNeill, Ph. D.     | Isbell College                        | Talladega, Ala.      |
| E. H. Murfee                | Central Female College                | Tuscaloosa, Ala.     |
| John D. Simpson             | Tuscaloosa Female College             | Do.                  |
| John Massey, LL. D.         | Alabama Conference Female College     | Tuskegee, Ala.       |
| S. E. Thompson, A. M.       | Central Baptist College               | Conway, Ark.         |
| Mrs. C. T. Mills            | Mills College                         | Mills College, Cal.  |
| Sister Mary Bernadine       | College of Notre Dame                 | San Jose, Cal.       |
| Mrs. M. A. Lipscomb         | Lucy Cobb Institute                   | Athens, Ga.          |
| Homer Bush, A. M.           | Andrew Female College                 | Cuthbert, Ga.        |
| G. J. Orr                   | Dalton Female College                 | Dalton, Ga.          |
| Rev. James E. Powell        | Monroe Female College                 | Forsyth, Ga.         |
| A. W. Van Hoose             | Georgia Female Seminary               | Gainesville, Ga.     |
| Rufus W. Smith, A. M.       | Lagrange Female College               | Lagrange, Ga.        |
| Chas. C. Cox, A. M.         | Southern Female College               | Manchester, Ga.      |
| E. H. Rowe                  | Wesleyan Female College               | Macon, Ga.           |
| J. Harris Chappell          | Georgia Normal and Industrial College | Milledgeville, Ga.   |
| A. J. Battle, D. D., LL. D. | Shorter College                       | Rome, Ga.            |
| John E. Baker               | Young Female College                  | Thomasville, Ga.     |
| Joseph R. Harker, Ph. D.    | Illinois Female College               | Jacksonville, Ill.   |
| E. F. Bullard, A. M.        | Jacksonville Female Academy           | Do.                  |
| C. W. Leffingwell, D. D.    | St. Mary's School                     | Knoxville, Ill.      |
| Sarah F. Anderson           | Rockford College                      | Rockford, Ill.       |
| John M. Duncan, A. M.       | Coates College                        | Terre Haute, Ind.    |
| Wm. Bishop, D. D.           | College for Young Ladies              | Oswego, Kans.        |
| F. R. Millsbaugh, D. D.     | College of the Sisters of Bethany     | Topeka, Kans.        |

## III.—COLLEGE PRESIDENTS—Continued.

## II.—Colleges for women—Continued.

| Name of president.                       | University or college.                                    | Address.             |
|--|---|----------------------|
| Benj. F. Cabell.....                     | Potter College.....                                       | Bowling Green, Ky.   |
| Miss C. A. Campbell.....                 | Caldwell College.....                                     | Danville, Ky.        |
| E. W. Elrod.....                         | Lynnland Female College.....                              | Glendale, Ky.        |
| Edmund Harrison, A. M.....               | Bethel Female College.....                                | Hopkinsville, Ky.    |
| J. B. Skinner.....                       | Hamilton Female College.....                              | Lexington, Ky.       |
| H. B. McClellan, A. M.....               | Sayre Female Institute.....                               | Do.                  |
| Cadetan Pope.....                        | Millersburg Female College.....                           | Millersburg, Ky.     |
| Mrs. B. W. Vineyard.....                 | Jessamine Female Institute.....                           | Nicholasville, Ky.   |
| A. C. Goodwin.....                       | Owensboro Female College.....                             | Owensboro, Ky.       |
| G. B. Perry.....                         | Kentucky College for Young Ladies.....                    | Pewee Valley, Ky.    |
| A. G. Murphey.....                       | Logan Female College.....                                 | Russellville, Ky.    |
| William Shelton.....                     | Stanford Female College.....                              | Stanford, Ky.        |
| Rice S. Eubank, B. S.....                | Winchester Female College.....                            | Winchester, Ky.      |
| George J. Ramsey, A. M.....              | Silliman Female Institute.....                            | Clinton, La.         |
| A. D. McVoy, A. M.....                   | Mansfield Female College.....                             | Mansfield, La.       |
| S. Decatur Lucas.....                    | Minden Female College.....                                | Minden, La.          |
| H. S. Whitman.....                       | Westbrook Seminary.....                                   | Deering, Me.         |
| Edgar M. Smith.....                      | Maine Wesleyan Seminary and Female College.....           | Kents Hill, Me.      |
| John F. Goucher, D. D.....               | Woman's College of Baltimore.....                         | Baltimore, Md.       |
| J. H. Apple, A. M.....                   | Woman's College.....                                      | Frederick, Md.       |
| C. L. Keedy, A. M., M. D.....            | Kee Mar College.....                                      | Hagerstown, Md.      |
| J. H. Turner, A. M.....                  | Maryland College for Young Ladies.....                    | Lutherville, Md.     |
| C. C. Bragdon, A. M.....                 | Lasell Seminary for Young Women.....                      | Auburndale, Mass.    |
| Miss Agnes Irwin, dean.....              | Radcliffe College.....                                    | Cambridge, Mass.     |
| L. Clark Seelye, D. D.....               | Smith College.....  | Northampton, Mass.   |
| Mrs. E. S. Mead, A. M.....               | Mount Holyoke College.....                                | South Hadley, Mass.  |
| Mrs. Julia J. Irvine.....                | Wellesley College.....                                    | Wellesley, Mass.     |
| R. B. Abbott, D. D.....                  | Albert Lea College.....                                   | Albert Lea, Minn.    |
| W. T. Lowrey, A. M., D. D.....           | Blue Mountain Female College.....                         | Blue Mountain, Miss. |
| John W. Chambers.....                    | Whitworth Female College.....                             | Brookhaven, Miss.    |
| Mrs. Adella M. Hillman.....              | Hillman College.....                                      | Clinton, Miss.       |
| Robert Frazier, LL. D.....               | Industrial Institute and College.....                     | Columbus, Miss.      |
| L. T. Fitzhugh.....                      | Belhaven College for Young Ladies.....                    | Jackson, Miss.       |
| C. H. Otken, LL. D.....                  | McComb Female Institute.....                              | McComb, Miss.        |
| J. W. Beeson, A. M.....                  | East Mississippi Female College.....                      | Meridian, Miss.      |
| L. M. Stone, D. D.....                   | Stone College for Young Ladies.....                       | Do.                  |
| A. S. Maddox.....                        | Union Female College.....                                 | Oxford, Miss.        |
| H. S. Roller.....                        | Chickasaw Female College.....                             | Pontotoc, Miss.      |
| Mrs. M. H. Meek.....                     | Port Gibson Female College.....                           | Port Gibson, Miss.   |
| Mrs. F. P. St. Clair.....                | Christian Female College.....                             | Columbia, Mo.        |
| S. F. Taylor, D. D.....                  | Stephens Female College.....                              | Do.                  |
| Hiram D. Groves.....                     | Howard Payne College.....                                 | Fayette, Mo.         |
| John W. Primrose, D. D.....              | Synodical Female College.....                             | Fulton, Mo.          |
| George F. Ayres.....                     | Presbyterian College.....                                 | Independence, Mo.    |
| B. T. Blewett, LL. D.....                | St. Louis Seminary.....                                   | Jennings, Mo.        |
| W. H. Buck.....                          | Baptist Female College.....                               | Lexington, Mo.       |
| Archibald A. Jones.....                  | Central Female College.....                               | Do.                  |
| T. P. Walton, A. B.....                  | Elizabeth Aul Female Seminary.....                        | Do.                  |
| A. K. Yancey.....                        | Hardin College.....                                       | Mexico, Mo.          |
| W. S. Knight, D. D.....                  | Lindenwood Female College.....                            | St. Charles, Mo.     |
| Geo. L. Plimpton.....                    | New Hampshire Conference Seminary and Female College..... | Tilton, N. H.        |
| J. W. Blaisdell.....                     | Bordentown Female College.....                            | Bordentown, N. J.    |
| J. H. McIlvaine, D. D.....               | Evelyn College.....                                       | Princeton, N. J.     |
| William E. Waters, Ph. D.....            | Wells College.....  | Aurora, N. Y.        |
| Truman J. Backus, LL. D.....             | Packer Collegiate Institute.....                          | Brooklyn, N. Y.      |
| A. W. Cowles, D. D., LL. D., acting..... | Elmira College.....                                       | Elmira, N. Y.        |
| Emily James Smith, dean.....             | Barnard College.....                                      | New York, N. Y.      |
| James M. Taylor, D. D.....               | Vassar College.....                                       | Poughkeepsie, N. Y.  |
| James Atkins, D. D.....                  | Asheville Female College.....                             | Asheville, N. C.     |
| S. A. Wolff.....                         | Gaston College.....                                       | Dallas, N. C.        |
| Dred Peacock, A. M.....                  | Greensboro Female College.....                            | Greensboro, N. C.    |
| S. P. Hutton, A. M.....                  | Claremont Female College.....                             | Hickory, N. C.       |
| Joseph A. Green.....                     | Louisburg Female College.....                             | Louisburg, N. C.     |
| John B. Brewer, A. M.....                | Chowan Baptist Female Institute.....                      | Murfreesboro, N. C.  |
| F. P. Hobgood.....                       | Oxford Female Seminary.....                               | Oxford, N. C.        |
| John H. Clewell.....                     | Salem Female Academy.....                                 | Salem, N. C.         |
| G. K. Bartholomew, A. M., Ph. D.....     | Bartholomew English and Classical School.....             | Cincinnati, Ohio.    |
| Chas. F. Thwing, D. D.....               | Cleveland College for Women.....                          | Cleveland, Ohio.     |
| L. D. Potter, D. D.....                  | Glendale Female College.....                              | Glendale, Ohio.      |
| Clara Sheldon.....                       | Granville Female College.....                             | Granville, Ohio.     |
| D. B. Purinton, LL. D.....               | Shepardson College.....                                   | Do.                  |
| Faye Walker, D. D.....                   | Oxford College.....                                       | Oxford, Ohio.        |
| Lella S. McKee, Ph. D.....               | Western College.....                                      | Do.                  |
| Miss Mary Evans.....                     | Lake Erie Seminary.....                                   | Painesville, Ohio.   |
| J. W. Knappenberger, A. M.....           | Allentown College for Women.....                          | Allentown, Pa.       |
| J. Max Hark, D. D.....                   | Moravian Seminary for Young Ladies.....                   | Bethlehem, Pa.       |



## III.—COLLEGE PRESIDENTS—Continued.

## II.—Colleges for women—Continued.

| Name of president.          | University or college.               | Address.             |
|-----------------------------|--------------------------------------|----------------------|
| M. Carey Thomas, Ph. D.     | Bryn Mawr College.                   | Bryn Mawr, Pa.       |
| Wallace P. Dick             | Metzger College                      | Carlisle, Pa.        |
| Samuel A. Martin            | Wilson College                       | Chambersburg, Pa.    |
| Charles B. Shultz           | Linden Hall Seminary.                | Lititz, Pa.          |
| E. E. Campbell, A. M.       | Irving Female College.               | Mechanicsburg, Pa.   |
| Frances E. Bennett          | Ogontz School                        | Ogontz School, Pa.   |
| R. Jennie De Vere           | Pennsylvania College for Women.      | Pittsburg, Pa.       |
| A. H. Norcross, D. D.       | Pittsburg Female College             | Do.                  |
| J. A. Rice                  | Columbia Female College              | Columbia, S. C.      |
| W. R. Atkinson, D. D.       | Presbyterian College for Women       | Do.                  |
| C. E. Todd                  | Due West Female College              | Due West, S. C.      |
| John R. Mack, A. M.         | Cooper-Limestone Institute           | Gaffney City, S. C.  |
| A. S. Townes                | Greenville College for Women.        | Greenville, S. C.    |
| M. M. Riley                 | Greenville Female College.           | Do.                  |
| B. F. Wilson                | Converse College                     | Spartanburg, S. C.   |
| B. G. Clifford              | Clifford Seminary                    | Union, S. C.         |
| S. Lander, A. M.            | Williamston Female College.          | Williamston, S. C.   |
| D. S. Hearon, D. D.         | Sullins College                      | Bristol, Tenn.       |
| C. A. Folk, A. B.           | Brownsville Female College           | Brownsville, Tenn.   |
| Robert D. Smith, A. M.      | Columbia Athenæum                    | Columbia, Tenn.      |
| T. E. Allen                 | Tennessee Female College.            | Franklin, Tenn.      |
| J. M. Hubbard               | Howard Female College                | Gallatin, Tenn.      |
| Howard W. Key, Ph. D.       | Memphis Conference Female Institute. | Jackson, Tenn.       |
| Chas. C. Ross               | East Tennessee Institute             | Knoxville, Tenn.     |
| N. J. Finney, A. M.         | Cumberland Female College.           | McMinnville, Tenn.   |
| Miss V. O. Wardlaw, A. M.   | Soule Female College                 | Murfreesboro, Tenn.  |
| Geo. W. F. Price, D. D.     | Nashville College for Young Ladies.  | Nashville, Tenn.     |
| J. D. Blanton               | Ward Seminary                        | Do.                  |
| S. N. Barker                | Martin Female College                | Pulaski, Tenn.       |
| Wm. M. Graybill, A. M.      | Synodical Female College             | Rogersville, Tenn.   |
| Z. C. Graves, LL. D.        | Mary Sharp College                   | Winchester, Tenn.    |
| Charles Carlton             | Carlton College                      | Bonham, Tex.         |
| E. H. Wells, A. M.          | Baylor Female College.               | Belton, Tex.         |
| S. M. Godbey                | Chappell Hill Female College.        | Chappell Hill, Tex.  |
| Kate M. Hunt                | Martha Washington College.           | Abingdon, Va.        |
| Samuel D. Jones, B. L.      | Stonewall Jackson Institute.         | Do.                  |
| Miss M. P. Horsley          | Southwest Virginia Institute.        | Bristol, Va.         |
| R. E. Farmer                | Albemarle Female Institute.          | Charlottesville, Va. |
| C. F. James, D. D.          | Montgomery Female College            | Christiansburg, Va.  |
| Chas. L. Cocke              | Danville College for Young Ladies    | Danville, Va.        |
| W. W. Smith, LL. D.         | Roanoke Female College.              | Do.                  |
| J. J. Scherer, A. M.        | Hollins Institute.                   | Hollins, Va.         |
| A. P. Piper                 | Randolph-Macon Woman's College       | Lynchburg, Va.       |
| Arthur K. Davis, A. M.      | Marion Female College                | Marion, Va.          |
| John H. Powell              | Norfolk College for Young Ladies.    | Norfolk, Va.         |
| James Willis, A. M.         | Southurk Female College              | Petersburg, Va.      |
| Mrs. J. E. B. Stuart        | Richmond Female Institute            | Richmond, Va.        |
| Henry P. Hamill             | Staunton Female Seminary             | Staunton, Va.        |
| A. M. Smith                 | Virginia Female Institute.           | Do.                  |
| John P. Hyde, D. D., LL. D. | Wesleyan Female Institute.           | Do.                  |
| Mrs. H. L. Field            | Episcopal Female Institute           | Winchester, Va.      |
| Ella C. Sabin               | Valley Female College.               | Do.                  |
|                             | Parkersburg Seminary                 | Parkersburg, W. Va.  |
|                             | Milwaukee and Downer Colleges.       | Milwaukee, Wis.      |

## III.—Schools of technology.

| Name of president.            | Name of institution.                         | Address.            |
|-------------------------------|--|---------------------|
| Wm. Le Roy Broun, LL. D.      | Alabama Agricultural and Mechanical College. | Auburn, Ala.        |
| J. L. Buchanan, LL. D.        | Arkansas Industrial University.              | Fayetteville, Ark.  |
| Alston Ellis, LL. D.          | Colorado Agricultural College.               | Fort Collins, Colo. |
| Regis Chauvenet, A. M., B. S. | State School of Mines                        | Golden, Colo.       |
| B. F. Koons                   | Storrs Agricultural College.                 | Storrs, Conn.       |
| Wm. C. Jason, A. M.           | State College for Colored Students           | Dover, Del.         |
| L. D. Bliss                   | Bliss School of Electricity.                 | Washington, D. C.   |
| Oscar Clute, LL. D.           | Florida State Agricultural College           | Lake City, Fla.     |
| Lyman Hall (acting)           | State School of Technology                   | Atlanta, Ga.        |
| F. W. Gunsaulus, D. D.        | Armour Institute                             | Chicago, Ill.       |
| J. H. Smart, LL. D.           | Purdue University                            | Lafayette, Ind.     |
| Carl L. Mees, Ph. D.          | Rose Polytechnic Institute                   | Terre Haute, Ind.   |
| W. M. Beardshear, LL. D.      | Iowa Agricultural College.                   | Ames, Iowa.         |



## III.—COLLEGE PRESIDENTS—Continued.

## III.—Schools of technology—Continued.

| Name of president.              | Name of institution.  | Address.                       |
|---------------------------------|---|--------------------------------|
| Geo. T. Fairchild, LL. D. ....  | Kansas Agricultural College .....                                 | Manhattan, Kans.               |
| James K. Patterson, Ph. D. .... | State College of Kentucky .....                                   | Lexington, Ky.                 |
| A. W. Harris, Ph. D. ....       | Maine State College .....   | Orono, Me.                     |
| P. H. Cooper, U. S. N. ....     | United States Naval Academy .....                                 | Annapolis, Md.                 |
| R. W. Silvester .....           | Maryland Agricultural College .....                               | College Park, Md.              |
| H. H. Goddell, LL. D. ....      | Massachusetts Agricultural College .....                          | Amherst, Mass.                 |
| F. A. Walker, LL. D. ....       | Massachusetts Institute of Technology .....                       | Boston, Mass.                  |
| T. C. Mendenhall, LL. D. ....   | Worcester Polytechnic Institute .....                             | Worcester, Mass.               |
| L. G. Gorton, M. S. ....        | Michigan Agricultural College .....                               | Agricultural College,<br>Mich. |
| M. E. Wadsworth, Ph. D. ....    | Michigan Mining School .....                                      | Houghton, Mich.                |
| S. D. Lee .....                 | Mississippi Agricultural and Mechan-<br>ical College .....        | Agricultural College,<br>Miss. |
| T. J. Calloway .....            | Alcorn Agricultural and Mechanical<br>College .....               | Westside, Miss.                |
| James Reid, A. B. ....          | Montana College of Agriculture and<br>Mechanic Arts .....         | Bozeman, Mont.                 |
| C. S. Murkland, Ph. D. ....     | New Hampshire College of Agricul-<br>ture and Mechanic Arts ..... | Durham, N. H.                  |
| Henry Morton, Ph. D. ....       | Stevens Institute of Technology .....                             | Hoboken, N. J.                 |
| C. A. Colton, E. M. ....        | Newark Technical School .....                                     | Newark, N. J.                  |
| S. P. McCrea .....              | New Mexico College of Agriculture<br>and Mechanic Arts .....      | Mesilla Park, N. Mex.          |
| John H. Peck, LL. D. ....       | Rensselaer Polytechnic Institute .....                            | Troy, N. Y.                    |
| O. H. Ernst, U. S. A. ....      | United States Military Academy .....                              | West Point, N. Y.              |
| J. O. Crosby, Ph. D. ....       | Agricultural and Mechanical College<br>for the Colored Race ..... | Greensboro, N. C.              |
| A. Q. Holladay .....            | North Carolina College of Agriculture<br>and Mechanic Arts .....  | Raleigh, N. C.                 |
| J. H. Worst .....               | North Dakota Agricultural College .....                           | Fargo, N. Dak.                 |
| Cady Staly, LL. D. ....         | Case School of Applied Science .....                              | Cleveland, Ohio.               |
| Geo. E. Morrow, A. M. ....      | Oklahoma Agricultural and Mechan-<br>ical College .....           | Stillwater, Okla.              |
| J. M. Bloss, A. M. ....         | Oregon Agricultural College .....                                 | Corvallis, Oreg.               |
| Edwin Morrison, M. S. ....      | Friends Polytechnic Institute .....                               | Salem, Oreg.                   |
| Thomas M. Drown, M. D. ....     | Lehigh University .....   | South Bethlehem, Pa.           |
| John H. Washburn, Ph. D. ....   | Rhode Island College of Agriculture<br>and Mechanic Arts .....    | Kingston, R. I.                |
| Asbury Coward .....             | South Carolina Military Academy .....                             | Charleston, S. C.              |
| E. B. Craighead .....           | Clemson Agricultural College .....                                | Clemson College, S. C.         |
| Lewis McLouth, Ph. D. ....      | South Dakota Agricultural College .....                           | Brookings, S. Dak.             |
| V. T. McGillycuddy .....        | State School of Mines .....                                       | Rapid City, S. Dak.            |
| L. S. Ross .....                | Agricultural and Mechanical College<br>of Texas .....             | College Station, Tex.          |
| J. H. Paul, Ph. B. ....         | Agricultural College of Utah .....                                | Logan, Utah.                   |
| Chas. C. Brill, A. M. ....      | Norwich University .....  | Northfield, Vt.                |
| J. M. McBryde, LL. D. ....      | Virginia Agricultural and Mechanical<br>College .....             | Blacksburg, Va.                |
| Scott Shipp, LL. D. ....        | Virginia Military Institute .....                                 | Lexington, Va.                 |
| E. A. Bryan, A. M. ....         | Washington Agricultural College and<br>School of Science .....    | Pullman, Wash.                 |

## Public normal schools.

| Location.          | Name of institution.                             | Principal.         |
|--------------------|--|--------------------|
| <i>Alabama.</i>    |  |                    |
| Florence .....     | State Normal College .....                       | James K. Powers.   |
| Forney .....       | Cherokee Normal Institute .....                  | T. E. Wilkinson.   |
| Jacksonville ..... | State Normal School .....                        | Jacob Forney.      |
| Normal .....       | State Colored Normal and Industrial School ..... | W. H. Council.     |
| Troy .....         | State Normal College .....                       | Edwin R. Eldridge. |
| <i>Arizona.</i>    |  |                    |
| Tempe .....        | Territorial Normal School of Arizona .....       | James McNaughton.  |
| <i>Arkansas.</i>   |  |                    |
| Barren Fork .....  | Mount Pleasant Academy .....                     | J. P. Bingham.     |
| Malvern .....      | Hot Spring County Normal Institute .....         | W. D. Leiper.      |
| Paris .....        | Paris Academy .....                              | G. S. Minnier.     |
| Pine Bluff .....   | Branch Normal College .....                      | J. C. Corbin.      |

*Public normal schools—Continued.*

| Location.                    | Name of institution.                             | Principal.                        |
|------------------------------|--|-----------------------------------|
| <i>California.</i>           |  |                                   |
| Chico.....                   | California State Normal School.....              | Robert F. Pennell.                |
| Los Angeles.....             | State Normal School.....                         | Edward T. Pierce.                 |
| San Francisco.....           | San Francisco Normal School.....                 | Laura T. Fowler.                  |
| San Jose.....                | State Normal School.....                         | Charles W. Childs.                |
| <i>Colorado.</i>             |  |                                   |
| Greeley.....                 | Colorado State Normal School.....                | Z. X. Snyder.                     |
| <i>Connecticut.</i>          |  |                                   |
| Bridgeport.....              | Bridgeport Training School.....                  | Miss Emma G. Olmstead.            |
| New Britain.....             | Normal Training School.....                      | Marcus White.                     |
| New Haven.....               | State Normal Training School.....                | Arthur B. Morrill.                |
| Willimantic.....             | do.....  | George P. Phenix.                 |
| <i>District of Columbia.</i> |  |                                   |
| Washington.....              | Washington Normal School.....                    | Mrs. Idaliah G. Myers.            |
| Do.....                      | Washington Normal, Seventh and Eighth Divisions. | Lucy E. Moten.                    |
| <i>Delaware.</i>             |  |                                   |
| Wilmington.....              | Wilmington Training School.....                  | Miss Mary C. I. Williams.         |
| <i>Florida.</i>              |  |                                   |
| De Funiak Springs.....       | Florida State Normal School.....                 | C. P. Walker.                     |
| Tallahassee.....             | Florida State Normal and Industrial College..    | T. De S. Tucker.                  |
| <i>Georgia.</i>              |  |                                   |
| Athens.....                  | State Normal School.....                         | S. D. Bradwell.                   |
| Milledgeville.....           | Georgia Normal and Industrial College.....       | J. Harris Chappell.               |
| <i>Idaho.</i>                |  |                                   |
| Albion.....                  | Albion State Normal School.....                  | Frank A. Swanger.                 |
| <i>Illinois.</i>             |  |                                   |
| Carbondale.....              | Southern Illinois State Normal University...     | H. W. Everest.                    |
| Chicago, Station "O".....    | Cook County Normal School.....                   | Francis W. Parker.                |
| Normal.....                  | Illinois State Normal University.....            | John W. Cook.                     |
| <i>Indiana.</i>              |  |                                   |
| Heltonville.....             | Heltonville Normal School.....                   | J. L. Birlingmier.                |
| Indianapolis.....            | Indianapolis Normal School.....                  | M. E. Nicholson.                  |
| Terre Haute.....             | Indiana State Normal School.....                 | William W. Parsons.               |
| <i>Iowa.</i>                 |  |                                   |
| Boonesboro.....              | Boone County Normal Institute.....               | B. P. Holst.                      |
| Cedarfalls.....              | Iowa State Normal School.....                    | Homer H. Seerley.                 |
| Kossuth.....                 | Kossuth Normal Academy.....                      | J. K. McCullough.                 |
| Rockwell City.....           | Calhoun County Normal School.....                | P. C. Holdoegel.                  |
| Woodbine.....                | Woodbine Normal School.....                      | Messrs. Kinney, Riddle, and Reed. |
| <i>Kansas.</i>               |  |                                   |
| Emporia.....                 | State Normal School.....                         | A. R. Taylor.                     |
| <i>Kentucky.</i>             |  |                                   |
| Cloverport.....              | Cloverport High School.....                      | James H. B. Logan.                |
| Frankfort.....               | State Normal School for Colored Persons.....     | John H. Jackson.                  |
| Louisville.....              | Louisville Normal School.....                    | Hiram Roberts.                    |
| <i>Louisiana.</i>            |  |                                   |
| Natchitoches.....            | Louisiana State Normal School.....               | Thomas D. Boyd.                   |
| <i>Maine.</i>                |  |                                   |
| Castine.....                 | Eastern State Normal School.....                 | Albert F. Richardson.             |
| Farmington.....              | Farmington State Normal School.....              | Geo. C. Purington.                |
| Fort Kent.....               | Madawaska Training School.....                   | Vetal Cyr.                        |
| Gorham.....                  | State Normal School.....                         | W. J. Corthell.                   |
| Springfield.....             | Springfield Normal School.....                   | H. H. Randall.                    |

## Public normal schools—Continued.

| Location.              | Name of institution.                           | Principal.                 |
|------------------------|--|----------------------------|
| <i>Maryland.</i>       |  |                            |
| Baltimore.....         | Maryland State Normal School.....              | E. B. Prettyman.           |
| <i>Massachusetts.</i>  |  |                            |
| Boston.....            | Boston Normal School.....                      | Larkin Dunton.             |
| Do.....                | Massachusetts Normal Art School.....           | George H. Bartlett.        |
| Cambridge.....         | Cambridge Training School for Teachers.....    | Herbert H. Bates.          |
| Framingham.....        | State Normal School.....                       | Ellen Hyde.                |
| Salem.....             | do.....  | Daniel B. Hagar.           |
| Westfield.....         | do.....  | J. C. Greenough.           |
| Worcester.....         | do.....  | E. Harlow Russell.         |
| <i>Michigan.</i>       |  |                            |
| Adrian.....            | Adrian Training School for Teachers.....       | Miss Mattie McFitridge.    |
| Detroit.....           | Detroit Normal Training School.....            | Harriet M. Scott.          |
| Ypsilanti.....         | Michigan State Normal School.....              | Richard G. Boone.          |
| <i>Minnesota.</i>      |  |                            |
| Mankato.....           | State Normal School.....                       | Edward Searing.            |
| Moorhead.....          | do.....  | L. C. Lord.                |
| St. Cloud.....         | do.....  | Joseph Carhart.            |
| Winona.....            | do.....  | Irwin Shepard.             |
| <i>Mississippi.</i>    |  |                            |
| Ackerman.....          | Central Mississippi Normal Institute.....      | J. A. Hudson.              |
| Blue Springs.....      | Blue Springs Normal College.....               | W. W. and R. E. Cornelius. |
| Holly Springs.....     | Holly Springs Normal Institute.....            | W. A. Anderson.            |
| Do.....                | Mississippi State Normal School.....           | E. D. Miller.              |
| Mount Pleasant.....    | Mount Pleasant High School.....                | Mrs. Sullivan.             |
| Poplar Springs.....    | Poplar Springs Normal College.....             | J. F. Mitchell.            |
| Sherman.....           | Mississippi Normal Institute.....              | David H. Davis.            |
| <i>Missouri.</i>       |  |                            |
| Cape Girardeau.....    | State Normal School.....                       | W. D. Vandiver.            |
| Cassville.....         | Cassville High School.....                     | N. L. Maiden.              |
| Kirksville.....        | State Normal School (First district).....      | W. D. Dobson.              |
| Mountain Grove.....    | Mountain Grove Academy.....                    | Wm. H. Lynch.              |
| Warrensburg.....       | State Normal School (Second district).....     | Geo. L. Osborne.           |
| <i>Nebraska.</i>       |  |                            |
| Peru.....              | Nebraska State Normal Training School.....     | A. W. Norton.              |
| <i>New Hampshire.</i>  |  |                            |
| Plymouth.....          | New Hampshire State Normal School.....         | Chas. C. Rounds.           |
| <i>New Jersey.</i>     |  |                            |
| Newark.....            | Newark Normal and Training School.....         | Joseph Clark.              |
| Paterson.....          | Paterson Normal Training School.....           | Wm. J. Slattery.           |
| Trenton.....           | New Jersey State Normal and Model Schools..... | James M. Green.            |
| <i>New Mexico.</i>     |  |                            |
| Silver City.....       | Normal School of New Mexico.....               | Rev. Geo. Selby.           |
| <i>New York.</i>       |  |                            |
| Albany.....            | New York State Normal College.....             | Wm. J. Milne.              |
| Brooklyn.....          | Training School for Teachers.....              | John Gallagher.            |
| Buffalo.....           | Buffalo Normal School.....                     | James M. Cassety.          |
| Cortland.....          | State Normal and Training School.....          | Francis J. Cheney.         |
| Fredonia.....          | do.....  | F. B. Palmer.              |
| Geneseo.....           | Geneseo State Normal School.....               | John M. Milne.             |
| New Paltz.....         | State Normal School.....                       | Frank Sumner Copen.        |
| New York.....          | Normal College of the City of New York.....    | Thomas Hunter.             |
| Oswego.....            | Oswego State Normal and Training School.....   | Edward A. Sheldon.         |
| Plattsburg.....        | State Normal School.....                       | Edward N. Jones.           |
| Potsdam.....           | State Normal and Training School.....          | Thomas B. Stowell.         |
| <i>North Carolina.</i> |  |                            |
| Clinton.....           | Clinton Colored Graded School.....             | G. W. Herring.             |
| Elizabeth City.....    | State Colored Normal School.....               | P. W. Moore.               |

*Public normal schools—Continued.*

| Location.                    | Name of institution.                                | Principal.              |
|------------------------------|---|-------------------------|
| <i>North Carolina—Con'd.</i> |   |                         |
| Fayetteville .....           | State Colored Normal School.....                    | Geo. H. Williams.       |
| Goldsboro .....              | State Normal School.....                            | R. S. Rives.            |
| Greensboro.....              | State Normal and Industrial School.....             | Chas. D. McIver.        |
| Plymouth .....               | Plymouth State Normal School.....                   | H. C. Crosby.           |
| Salisbury.....               | State Normal School.....                            | F. M. Martin.           |
| <i>North Dakota.</i>         |   |                         |
| Mayville.....                | State Normal School.....                            | J. T. Perigo.           |
| Valley City.....             | do .....  | Geo. A. McFarland.      |
| <i>Ohio.</i>                 |   |                         |
| Cincinnati .....             | Cincinnati Normal School.....                       | Mrs. Carrie N. Lathrop. |
| Cleveland .....              | Cleveland Normal and Training School.....           | Miss L. W. Hughes.      |
| Columbus .....               | Columbus Normal School.....                         | Margaret W. Sutherland. |
| Dayton .....                 | Dayton Normal School.....                           | Grace A. Greene.        |
| Geneva .....                 | Geneva Normal School.....                           | J. P. Treat.            |
| Orwell .....                 | Orwell public schools .....                         | L. J. Addicott.         |
| <i>Oklahoma.</i>             |   |                         |
| Edmond .....                 | Territorial Normal School of Oklahoma.....          | E. R. Williams.         |
| <i>Oregon.</i>               |   |                         |
| Drain.....                   | State Normal School.....                            | Louis Barzee.           |
| Monmouth .....               | do .....  | P. L. Campbell.         |
| Weston.....                  | do .....  | M. G. Royal.            |
| <i>Pennsylvania.</i>         |   |                         |
| Allegheny .....              | Allegheny High School.....                          | James E. Morrow.        |
| California.....              | Southwestern State Normal School.....               | Theo. B. Noss.          |
| Clarion .....                | Clarion State Normal School.....                    | A. J. Davis.            |
| East Stroudsburg.....        | East Stroudsburg State Normal School.....           | Geo. P. Bible.          |
| Indiana .....                | Indiana Normal School of Pennsylvania.....          | David J. Waller.        |
| Mansfield.....               | Mansfield State Normal School .....                 | S. H. Albro.            |
| Millersville.....            | First Pennsylvania State Normal School.....         | E. Oram Lyte.           |
| Philadelphia.....            | Philadelphia Normal School for Girls.....           | Geo. Howard Cliff.      |
| Pittsburg.....               | Pittsburg High School, normal department.....       | C. B. Wood.             |
| Shippensburg.....            | Cumberland Valley State Normal School.....          | G. M. D. Eckels.        |
| Slippery Rock.....           | Slippery Rock State Normal School.....              | Albert E. Maltby.       |
| <i>Rhode Island.</i>         |   |                         |
| Providence .....             | Rhode Island State Normal School.....               | Wm. Ed. Wilson.         |
| <i>South Carolina.</i>       |   |                         |
| Charleston.....              | Memminger High School .....                         | Miss A. R. Simonton.    |
| Rock Hill.....               | Winthrop Normal and Industrial College of S. C..... | D. B. Johnson.          |
| <i>South Dakota.</i>         |   |                         |
| Madison .....                | State Normal School.....                            | W. H. H. Beadle.        |
| Speartfish .....             | do .....  | F. L. Cook.             |
| <i>Tennessee.</i>            |   |                         |
| Nashville.....               | Peabody Normal College.....                         | William H. Payne.       |
| <i>Texas.</i>                |   |                         |
| Huntsville.....              | Sam Houston Normal Institute.....                   | H. C. Pritchett.        |
| <i>Vermont.</i>              |   |                         |
| Johnson .....                | State Normal School.....                            | P. A. Blossom.          |
| Randolph Center.....         | do .....  | Edward Conant.          |
| <i>Virginia.</i>             |   |                         |
| Farmville.....               | State Female School of Virginia .....               | John A. Cunningham.     |
| Petersburg .....             | Virginia Normal and Collegiate Institute.....       | J. H. Johnston.         |
| Rye Cove.....                | Washington Institute .....                          | Jos. C. Hill.           |
| <i>Washington.</i>           |   |                         |
| Ellensburg .....             | State Normal School.....                            | P. A. Getz.             |



*Public normal schools—Continued.*

| Location.             | Name of institution.                       | Principal.        |
|-----------------------|--|-------------------|
| <i>West Virginia.</i> |  |                   |
| Concord Church.....   | Concord Church Normal School.....          | John D. Sweeney.  |
| Fairmont.....         | Fairmont State Normal School.....          | J. Walter Barnes. |
| Farm.....             | West Virginia Colored Institute.....       | John H. Hill.     |
| Fayetteville.....     | Fayetteville Academy.....                  | H. C. Robertson.  |
| Glenville.....        | Glenville State Normal School.....         | M. D. Helmick.    |
| Huntington.....       | Marshall College.....                      | Thos. F. Hodges.  |
| Shepherdstown.....    | Shepherd College, State Normal School..... | A. C. Kimler.     |
| West Liberty.....     | West Liberty State Normal School.....      | J. N. Deahl.      |
| <i>Wisconsin.</i>     |  |                   |
| Oshkosh.....          | State Normal School.....                   | George S. Albee.  |
| Platteville.....      | do.....                                    | James Chalmers.   |
| River Falls.....      | River Falls State Normal School.....       | W. D. Parker.     |
| Stevens Point.....    | State Normal School.....                   | Theron B. Pray.   |
| Whitewater.....       | do.....                                    | Albert Salisbury. |

*Private normal schools.*

|                              |   |                         |
|------------------------------|---|-------------------------|
| <i>Alabama.</i>              |   |                         |
| Huntsville.....              | Central Alabama Academy.....                              | A. W. McKinney.         |
| Livingston.....              | Alabama Normal College for Girls.....                     | Miss Julia S. Tutwiler. |
| Scottsboro.....              | Tri-State Normal University.....                          | J. T. Rose.             |
| Selma.....                   | Burrell Academy.....                                      | A. T. Burnell.          |
| Tuskegee.....                | Tuskegee Normal and Industrial Institute.....             | B. T. Washington.       |
| Vernon.....                  | Vernon Institute.....                                     | C. V. Thompson.         |
| <i>Arkansas.</i>             |   |                         |
| Arkadelphia.....             | Arkadelphia Academy.....                                  | F. L. Jones.            |
| Do.....                      | Shorter University.....                                   | James E. Carter.        |
| Berryville.....              | Clarke's Academy.....                                     | Isaac A. Clarke.        |
| Clarksville.....             | Arkansas Cumberland College.....                          | J. A. Laughlin.         |
| Little Rock.....             | Arkansas Baptist College.....                             | J. A. Booker.           |
| Southland.....               | Southland College and Normal Institute.....               | J. R. Hunt.             |
| Sulphur Rock.....            | Sulphur Rock College.....                                 | J. W. Decker.           |
| <i>California.</i>           |   |                         |
| Los Angeles.....             | Fröbel Institute.....                                     | Carolyn M. N. Claverie. |
| Martinez.....                | Novitiate of the Brothers of the Christian School.....    | Brother Theodorus.      |
| Oakland.....                 | Gilson's Normal and Special Training School.....          | J. C. Gilson.           |
| San Francisco.....           | California Kindergarten Training School.....              | Nora A. Smith.          |
| Do.....                      | Golden Gate Free Kindergarten Normal Training School..... | Anna M. Stovall.        |
| <i>Colorado.</i>             |   |                         |
| Denver.....                  | Denver Normal and Preparatory School.....                 | Fred. Dick.             |
| <i>Connecticut.</i>          |   |                         |
| Norwich.....                 | Normal Department of Norwich Free Academy.....            | Robert P. Keep.         |
| <i>Delaware.</i>             |   |                         |
| Newark.....                  | Academy of Newark.....                                    | Jas. Dickson Shanks.    |
| <i>District of Columbia.</i> |   |                         |
| Washington.....              | Wayland Seminary.....                                     | G. M. P. King.          |
| <i>Florida.</i>              |   |                         |
| Jasper.....                  | Jasper Normal Institute.....                              | J. M. Williams.         |
| Orangepark.....              | Orange Park Normal and Manual Training School.....        | B. D. Rowlee.           |
| White Springs.....           | Florida Normal College.....                               | J. Jerome Welty.        |
| <i>Georgia.</i>              |   |                         |
| Athens.....                  | Jeruel Academy.....                                       | J. H. Brown.            |
| Atlanta.....                 | Atlanta Baptist Academy.....                              | Rev. Geo. Sale.         |
| Do.....                      | Spelman Seminary.....                                     | Miss Harriet E. Giles.  |
| Demorest.....                | Demorest Normal School.....                               | J. S. Jennings.         |

*Private normal schools—Continued.*

| Location.                 | Name of institution.  | Principal.              |
|---------------------------|---|-------------------------|
| <i>Georgia—Continued.</i> |   |                         |
| Greensboro .....          | Thomas Stocks Institute .....   | N. H. Ballard.          |
| Lagrange .....            | La Grange High School .....   | Clifford L. Smith.      |
| Macon .....               | Ballard Normal School .....   | George C. Burrage.      |
| Monroe .....              | Johnston Institute .....  | John Gibson.            |
| Thomasville .....         | Allen Normal and Industrial School .....  | Amelia Merriam.         |
| <i>Illinois.</i>          |   |                         |
| Addison .....             | German Evangelical Lutheran Teachers' Seminary.                                   | E. A. W. Krauss.        |
| Aurora .....              | Jennings Seminary .....   | Rev. A. R. Counce.      |
| Bushnell .....            | Western Normal College .....  | W. M. Evans.            |
| Dixon .....               | Northern Illinois Normal School .....   | J. B. Dille.            |
| Galesburg .....           | Galesburg Kindergarten Normal School .....  | M. Evelyn Strong.       |
| Mount Morris .....        | Mount Morris College .....  | J. G. Roger.            |
| Onarga .....              | Grand Prairie Seminary .....  | S. Van Felt.            |
| Oregon .....              | Wells School for Teachers .....   | E. L. Wells.            |
| Rushville .....           | Rushville Normal and Business College .....                                       | Maxwell Kennedy.        |
| <i>Indiana.</i>           |   |                         |
| Borden .....              | Borden Institute .....  | H. A. Buerk.            |
| Collegeville .....        | St. Joseph's College .....  | Aug. Seifut.            |
| Columbus .....            | Columbus Business University and Normal College.                                  | F. H. Harper.           |
| Covington .....           | Indiana Normal College .....  | Olive E. Coffeen.       |
| Danville .....            | Central Normal College and Commercial Institute.                                  | J. A. Joseph.           |
| Fairmount .....           | Fairmount Academy and Normal School .....   | Elwood C. Ellis.        |
| Indianapolis .....        | Indiana Kindergarten and Primary Normal Training School.                          | Eliza A. Blaker.        |
| Marion .....              | Marion Normal College .....   | A. Jones.               |
| Mitchell .....            | Southern Indiana Normal College .....   | John C. Willis.         |
| Portland .....            | Portland Normal, Music, and Law School .....                                      | G. F. Riese.            |
| Princeton .....           | Indiana Normal University .....   | J. M. Stephens.         |
| Spiceland .....           | Spiceland Academy .....   | Murray S. Wildman.      |
| Valparaiso .....          | Northern Indiana Normal School .....  | H. B. Brown.            |
| <i>Iowa.</i>              |   |                         |
| Afton .....               | Afton Normal and Business College .....   | S. S. Stivers.          |
| Algona .....              | Northern Iowa Normal and Commercial School .....                                  | A. J. Lilly.            |
| Anamosa .....             | St. Mark's School .....   | J. I. Corbyn.           |
| Bloomfield .....          | Southern Iowa Normal, Scientific, and Business Institute.                         | A. A. Williams.         |
| Casey .....               | Normal and Preparatory School .....   | Mrs. M. J. Cowman.      |
| Carroll .....             | Carroll Normal and Business College .....   | A. E. Whitten.          |
| Denison .....             | Denison Normal School .....   | W. C. Van Ness.         |
| Dexter .....              | Dexter Normal College .....   | A. G. Smith.            |
| Glidden .....             | National Normal School and Business College .....                                 | E. L. Essley.           |
| Hedrick .....             | Hedrick Normal and Commercial School .....  | W. O. Mullin.           |
| Hull .....                | Hull Educational Institute .....  | James F. Eaton.         |
| Lemars .....              | Lemars Normal School and Business College .....                                   | F. M. Chaffee.          |
| Nora Springs .....        | Nora Springs Seminary .....   | C. P. Colgrove.         |
| Orange City .....         | Northwestern Classical Academy .....  | James F. Zwemer.        |
| Oskaloosa .....           | Hull's Preparatory Normal .....   | A. Hull.                |
| Ottumwa .....             | Ottumwa Normal School .....   | Martha A. Peck.         |
| Shenandoah .....          | Western Normal College, Shenandoah Commercial Institute and Musical Conservatory. | J. M. Hussey.           |
| Spirit Lake .....         | Spirit Lake Normal and Business Institute .....                                   | H. Welty.               |
| Vinton .....              | Tilford Academy .....   | T. F. Tobin.            |
| Waukon .....              | Waukon Business College and Normal School .....                                   | L. Eells.               |
| <i>Kansas.</i>            |   |                         |
| Fort Scott .....          | Kansas Normal College .....   | D. E. Sanders.          |
| Great Bend .....          | Central Normal College .....  | Wm. Stryker.            |
| Hiawatha .....            | Hiawatha Academy .....  | L. E. Tupper.           |
| Lincoln .....             | Kansas Christian College .....  | O. B. Whitaker.         |
| Marysville .....          | Modern Normal College .....   | J. G. Ellenbecker.      |
| McPherson .....           | McPherson College .....   | S. Z. Sharp.            |
| Salina .....              | Salina Normal University .....  | L. O. Thoroman.         |
| Winfield .....            | Southwest Kansas College, Normal Department.                                      | Geo. R. Kirkpatrick.    |
| <i>Kentucky.</i>          |   |                         |
| Albany .....              | Albany High School .....  | A. L. Rhoton.           |
| Blaine .....              | Blaine Normal School .....  | G. Milton Elam.         |
| Bowling Green .....       | Bowling Green Business College and Southern Normal School.                        | H. H. and T. C. Cherry. |

*Private normal schools—Continued.*

| Location.                  | Name of institution.                                 | Principal.              |
|----------------------------|--|-------------------------|
| <i>Kentucky—Continued.</i> |  |                         |
| Bremen                     | Bremen College and Perryman Institute                | G. V. Gordon.           |
| Calhoun                    | Calhoun Male and Female Select School                | Ed. W. Brand.           |
| Corinth                    | Northern Kentucky Normal School and Academy.         | A. A. Hibner.           |
| Flatlick                   | Flatlick Union Normal School                         | S. J. Watts.            |
| Fulton                     | Fulton Normal and Business College                   | A. M. Kirkland.         |
| Hardinsburg                | Breckinridge Normal College                          | R. P. Shacklett.        |
| Irvine                     | Irvine Training School                               | M. L. Downing.          |
| Jackson                    | Jackson Collegiate Institute                         | E. P. Mickle.           |
| Kuttawa                    | Kuttawa Normal School                                | B. M. Boyd.             |
| Louisa                     | Louisa Normal Institute                              | U. S. G. Anderson.      |
| Madisonville               | Western Kentucky Normal School                       | H. Eveiyu Brooks.       |
| Magnolia                   | Magnolia Classical and Normal College                | Kvander Maaten.         |
| Waddy                      | Central Normal School and Business College           | J. B. Secrest.          |
| <i>Louisiana.</i>          |  |                         |
| Baldwin                    | Gilbert Academy and Industrial Institute             | A. E. P. Albert.        |
| New Orleans                | Southern Academic Institute                          | Mrs. I. E. Seaman.      |
| <i>Maine.</i>              |  |                         |
| Bucksport                  | E. M. Conference Seminary                            | Rev. A. F. Chase.       |
| Hampden Corner             | Hampden Academy                                      | Albert Robinson.        |
| Houlton                    | Ricker Classical Institute                           | A. M. Thomas.           |
| Lee                        | Lee Normal Academy                                   | James D. Murphy.        |
| <i>Maryland.</i>           |  |                         |
| Buckeystown                | Buckeystown Normal Training School                   | F. R. Neighbours.       |
| Rising Sun                 | Friends' Normal Institute                            | Thos. D. Bowers.        |
| <i>Massachusetts.</i>      |  |                         |
| Waltham                    | Notre Dame Training School                           | Sister Georgiana.       |
| Worcester                  | Kindergarten Normal Class                            | Annie C. Rust.          |
| <i>Michigan.</i>           |  |                         |
| Benton Harbor              | Benton Harbor College                                | G. J. Edgecumbe.        |
| Big Rapids                 | Ferris Industrial School                             | W. N. Ferris.           |
| Fenton                     | Fenton Normal School and Commercial College          | W. A. Stevenson.        |
| Flint                      | Flint Normal College and Business Institute          | G. Eastman Swarthout.   |
| Mount Pleasant             | Central Michigan Normal School                       | C. F. R. Bellows.       |
| Petoskey                   | Graves Normal Academy                                | M. O. Graves.           |
| <i>Minnesota.</i>          |  |                         |
| Moorhead                   | Concordia College                                    | H. H. Aaker.            |
| New Ulm                    | Dr. Martin Luther College                            | John Schaller.          |
| Sauk Center                | Sauk Center Academy and Business College             | Lewis H. Vath.          |
| <i>Mississippi.</i>        |  |                         |
| Bellefontaine              | Bellefontaine High School                            | W. B. Walker.           |
| Buenavista                 | Buena Vista Normal College                           | R. V. Fletcher.         |
| Tuka                       | Tuka Normal College                                  | H. A. Dean.             |
| Meridian                   | Meridian Academy                                     | S. D. Redmond.          |
| Jackson                    | Jackson College                                      | Rev. Luther G. Barrett. |
| Plattsburg                 | Winston Normal High School                           | H. Lynn McCleskey.      |
| Tougaloo                   | Normal Department Tougaloo University                | Earnest C. Moore.       |
| Tula                       | Tula Normal Institute and Business College           | C. C. Hughes.           |
| Walnut Grove               | Mississippi Central Normal School                    | J. M. Consley.          |
| <i>Missouri.</i>           |  |                         |
| Brookfield                 | Brookfield College                                   | M. H. Reaser.           |
| Chillicothe                | Chillicothe Normal, Business, and Shorthand College. | Allen Moore.            |
| Clarksburg                 | Hooper Institute                                     | W. C. Sebring.          |
| College Mound              | McGee College  | J. B. Creighton.        |
| El Dorado Springs          | El Dorado Normal and Business College                | O. C. Wood.             |
| Greenridge                 | Central Missouri Normal and Business College         | R. M. Scotten.          |
| Kidder                     | Kidder Institute                                     | G. W. Shaw.             |
| Licking                    | Licking College                                      | J. N. Curlin.           |
| Odessa                     | Odessa College and Business Institute                | J. R. McChesney.        |
| Pleasant Hope              | Pleasant Hope Normal Academy                         | D. F. Royer.            |
| Piedmont                   | Wayne Academy  | J. M. Ricks.            |
| Stanberry                  | Stanberry Normal School                              | John E. Fesler.         |
| Thornfield                 | Thornfield Normal Institute                          | J. E. Smith.            |
| Weaubleau                  | Weaubleau Christian College                          | J. Whitaker.            |

*Private normal schools—Continued.*

| Location.              | Name of institution.                                   | Principal.             |
|------------------------|--|------------------------|
| <i>Montana.</i>        |  |                        |
| Twinn Bridges.....     | Montana Normal Training School .....                   | Chas. W. Birchard.     |
| <i>Nebraska.</i>       |  |                        |
| Fremont.....           | Fremont Normal School .....                            | W. H. Clemmons.        |
| Kearney.....           | Platte Collegiate Institute.....                       | Harry N. Russell.      |
| Lincoln.....           | Lincoln Polytechnic Institute.....                     | A. A. Faurot.          |
| Do.....                | Lincoln Normal University.....                         | Hill M. Beil.          |
| Madison.....           | North Nebraska Normal College .....                    | E. A. Whitwam.         |
| Pawnee City.....       | Pawnee City Academy .....                              | Rev. R. T. Campbell.   |
| Santee Agency .....    | Santee Normal Training School.....                     | Alfred L. Riggs.       |
| Stromsburg.....        | Bryant Normal University .....                         | J. J. Bryant.          |
| Wayne.....             | Nebraska Normal College .....                          | J. M. Pile.            |
| <i>New Mexico.</i>     |  |                        |
| Santa Fe.....          | Loretto Convent.....                                   | Mother Francisca Lamy. |
| <i>North Carolina.</i> |  |                        |
| Asheville.....         | Normal and Collegiate Institute.....                   | Rev. Thos. Lawrence.   |
| Beaufort.....          | Washburn Seminary .....                                | F. S. Hitchcock.       |
| Blowing Rock .....     | Skyland Institute .....                                | Mrs. Ellen R. Dorsett. |
| Concord.....           | Scotia Seminary .....                                  | D. J. Satterfield.     |
| Farmer.....            | Farmer Institute .....                                 | W. H. Boone.           |
| Kings Mountain.....    | Lincoln Academy .....                                  | Lillian S. Cathcart.   |
| Lumberton.....         | Whitin Normal School.....                              | D. P. Allen.           |
| Poes.....              | Bules Creek Academy .....                              | Rev. J. A. Campbell.   |
| Raleigh.....           | St. Augustine's School .....                           | Rev. A. B. Hunter.     |
| Shallotte.....         | Shallotte Preparatory School .....                     | Geo. Leonard.          |
| Traphill.....          | Fairview College .....                                 | M. L. Rork.            |
| Warrenton.....         | Shiloh Institute .....                                 | J. A. Whitted.         |
| Wilmington.....        | Gregory Normal Institute.....                          | Francis T. Waters.     |
| <i>North Dakota.</i>   |  |                        |
| Grand Forks .....      | Grand Forks College .....                              | C. B. Blake, jr.       |
| <i>Ohio.</i>           |  |                        |
| Ada.....               | Ohio Normal University.....                            | H. S. Lehr.            |
| Canfield.....          | Northeastern Ohio Normal College.....                  | John A. Cummins.       |
| Dayton.....            | St. Mary's Academy.....                                | Rev. George Meyer.     |
| Defiance.....          | Defiance College.....                                  | Jno. C. McCanley.      |
| Ewington.....          | Ewington Academy .....                                 | F. F. Vale.            |
| Fayette.....           | Fayette Normal University.....                         | J. E. Dodds.           |
| Middlepoint.....       | Western Ohio Normal School.....                        | P. S. Morgan.          |
| Philadelphia.....      | John P. Kuhn's Normal School.....                      | John P. Kuhn.          |
| Piketon.....           | Southern Ohio School of Pedagogy.....                  | Levi B. Moore.         |
| South New Lyme.....    | New Lyme Institute.....                                | J. Tuckerman.          |
| Woodville.....         | Teachers' Seminary .....                               | Theo. Mees.            |
| <i>Pennsylvania.</i>   |  |                        |
| Bloomsburg .....       | Bloomsburg Literary Institute and State Normal School. | J. P. Welsh.           |
| Ebensburg.....         | Ebensburg Normal Institute.....                        | T. L. Gibson.          |
| Huntingdon.....        | Juniata College.....                                   | M. G. Brumbaugh.       |
| Kutztown.....          | Keystone State Normal School.....                      | Rev. G. B. Hancher.    |
| Lockhaven.....         | Central State Normal School.....                       | James Eldon.           |
| McDonald.....          | Ingliside Academy.....                                 | W. D. Irons.           |
| Muncy.....             | Lycoming County Normal School.....                     | Fred. Woods Robbins.   |
| Philadelphia.....      | Institute for Colored Youth .....                      | Fannie J. Coppin.      |
| Pittsburg.....         | Curry Institute.....                                   | J. Clark Williams.     |
| Rimersburg.....        | Clarion Collegiate Institute.....                      | W. L. Smith.           |
| Waynesburg.....        | Waynesburg College.....                                | Rev. A. B. Miller.     |
| West Chester.....      | West Chester State Normal School.....                  | Geo. Morris Philips.   |
| <i>South Carolina.</i> |  |                        |
| Aiken.....             | Schofield Normal and Industrial School.....            | Ella A. Warner.        |
| Camden.....            | Browning Home and Industrial School.....               | Mrs. A. Gorden.        |
| Charleston.....        | Avery Normal Institute.....                            | Morrison A. Holmes.    |
| Do.....                | Wallingford Academy.....                               | Rev. Thos. A. Grove.   |
| Frogmore.....          | Penn Normal and Industrial School.....                 | Miss Ellen Murray.     |
| <i>South Dakota.</i>   |  |                        |
| Sioux Falls.....       | Lutheran Normal School.....                            | H. B. Hustvedt.        |

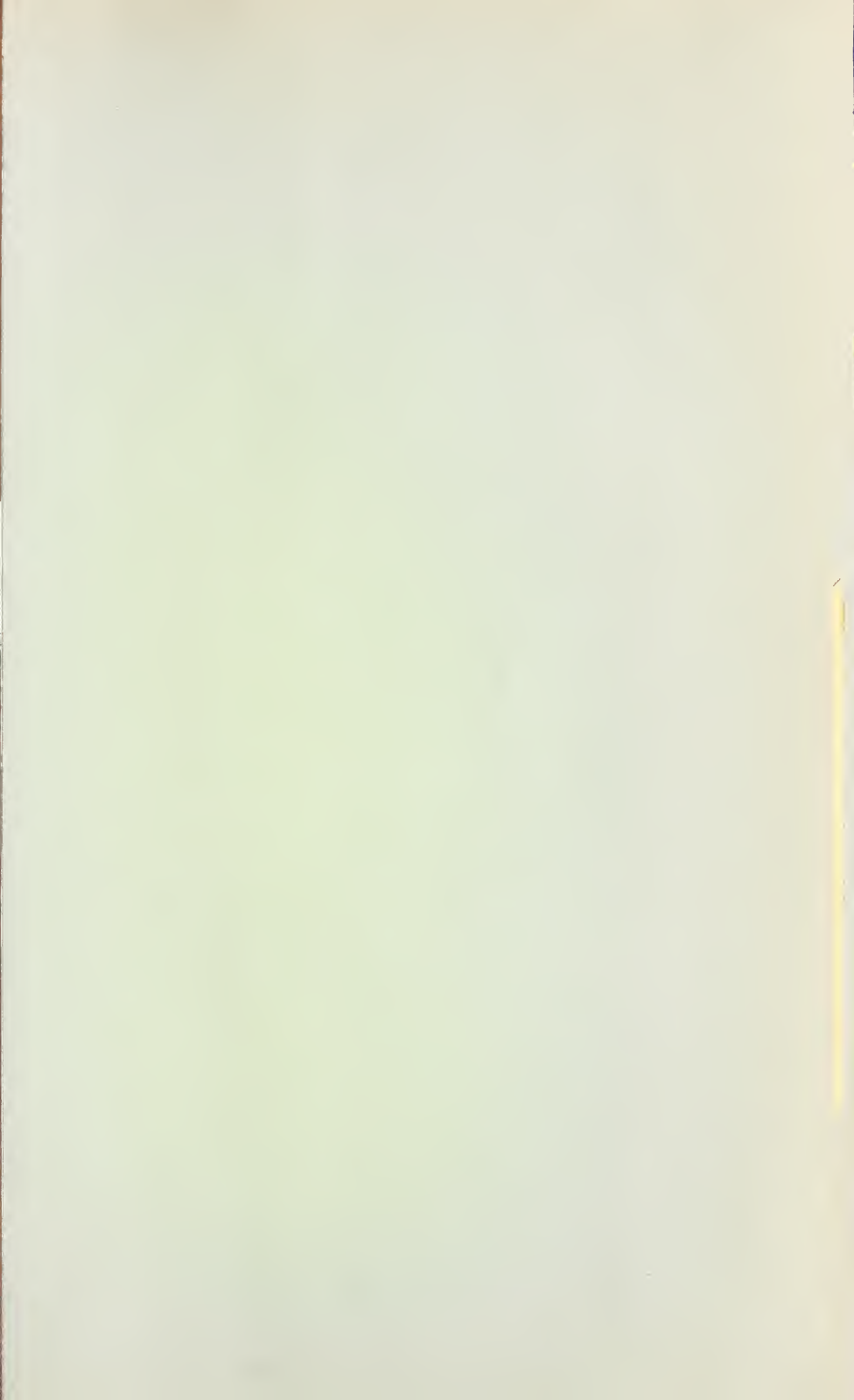


## Private normal schools—Continued.

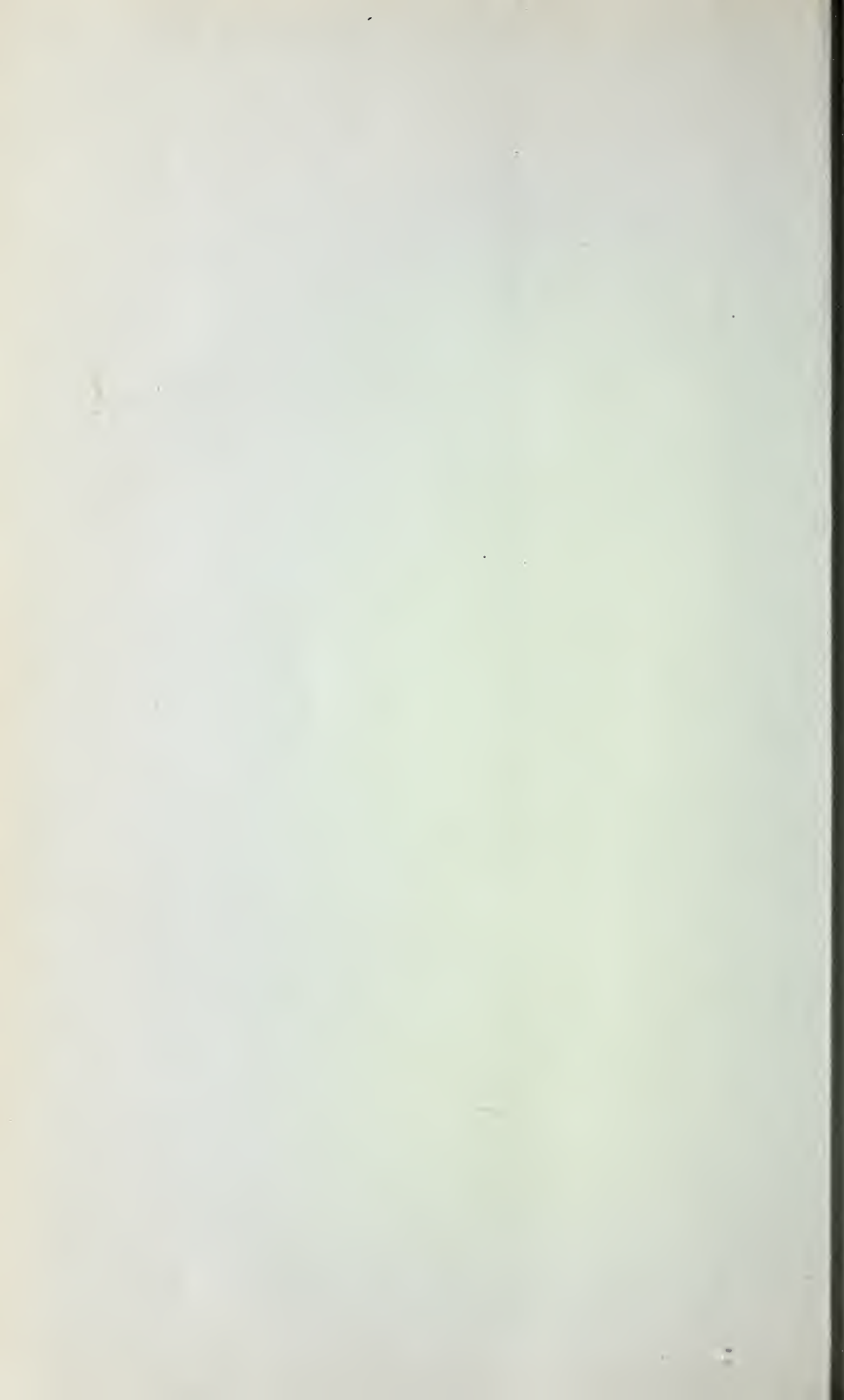
| Location.             | Name of institution.  | Principal.             |
|-----------------------|---|------------------------|
| <i>Tennessee.</i>     |   |                        |
| Bloomington           | Kingsley Seminary   | Joseph H. Ketron.      |
| Birchwood             | Rutherford Graded School  | R. T. Rutherford.      |
| Dickson               | Dickson Normal School   | Wade & Loggins.        |
| Fountain City         | Holbrook Normal College   | J. J. Crumley.         |
| Grandview             | Grand View Normal Institute                                     | Henry W. Webb.         |
| Greenbrier            | Central Tennessee Normal and Commercial School.                 | N. J. Pritchard.       |
| Hornbeck              | West Tennessee Normal College                                   | W. L. Willingham.      |
| Huntingdon            | Southern Normal University                                      | J. A. Baber.           |
| Jonesboro             | Warner Institute  | Anna R. Miner.         |
| McLemoresville        | McLemoresville Collegiate Institute                             | Lewis S. Mitchell.     |
| Madisonville          | Freedmen's Normal Institute                                     | L. H. Garner.          |
| Morristown            | Morristown Normal Academy                                       | Judson S. Hill.        |
| Millberry             | South Central Tennessee Normal School                           | J. C. McClure.         |
| Wheat                 | Roane College   | J. P. Griffiths.       |
| <i>Texas.</i>         |   |                        |
| Austin                | Tillotson College   | Rev. W. S. Goss.       |
| Brenham               | Blinn Memorial College  | C. Urbantke.           |
| Castroville           | Divine Providence Academy                                       | Mother M. Florence.    |
| Crockett              | Mary Allen Seminary   | Rev. John B. Smith.    |
| Detroit               | Detroit Normal College  | Andrew Ross.           |
| Hearne                | Hearne Academy, Normal and Industrial Institute.                | M. H. Broyles.         |
| Omen                  | Summer Hill Select School                                       | A. W. Orr.             |
| Minden                | Rock Hill Institute   | G. I. Watkins.         |
| <i>Utah.</i>          |   |                        |
| Provo City            | Brigham Young Academy   | Benj. Cluff.           |
| Salt Lake City        | Latter Day Saints' College                                      | Willard Dope.          |
| <i>Vermont.</i>       |   |                        |
| Castleton             | State Normal School   | Abel E. Leavenworth.   |
| <i>Virginia.</i>      |   |                        |
| Hampton               | Hampton Normal and Agricultural Institute                       | H. B. Frissell.        |
| Lawrenceville         | St. Paul Normal and Industrial School                           | Rev. James S. Russell. |
| Norfolk               | Norfolk Mission College   | J. B. Work.            |
| Reliance              | Shenandoah Normal College                                       | G. W. Hoenshel.        |
| Richmond              | Hartshorn Memorial College                                      | Lyman B. Tefft.        |
| Scottsburg            | Scottsburg Normal College                                       | S. H. Thompson.        |
| Stuart                | Stuart Normal College   | I. M. Groves.          |
| Willis                | The Mountain Normal School                                      | J. H. Rutrough.        |
| <i>West Virginia.</i> |   |                        |
| Harpers Ferry         | Storer College  | Nathan Cook Brackett.  |
| Summersville          | Summersville Normal School                                      | W. G. Brown.           |
| <i>Wisconsin.</i>     |   |                        |
| Milwaukee             | National German American Teachers' Semi-Institute.              | Emil Dapprich.         |
| St. Francis           | Catholic Normal School of the Holy Family and Pio Nono College. | Rev. M. M. Gerend.     |
| <i>Wyoming.</i>       |   |                        |
| Rawlins               | Wyoming Normal and Scientific College                           | J. E. Brate.           |











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